10¢ A COPY

The OIL WEEKLY

August 21, 1925 2085 10 Cents A Copy

BUILT FOR A PURPOSE

To Eliminate Evaporation

The careful craftmanship that makes Maloney Tanks gas-tight, makes more profit for you.

To their patented crimped offset seams and joints, strongly reinforced deck and bottom construction, we add the additional advantage of Keystone Copper Steel, the most highly rust-resisting tank material known.

"Alone in Quality"

MALONEY TANK MFG. COMPANY

Tulsa, Oklahoma

12 to 3,000 Barrels Capacity Prompt, Dependable Export Service

MALONEY PATENTED BOLTED COPPER-STEEL TANKS

MADE OF KEYSTONE COPPER STEEL

WE NOW FURNISH "BUCK" TYPE VACUUM-PRESSURE VALVES AND VACUUM BREAKERS

MALONEY

"There's one reason for using IDECO COMPLETE STEEL RIGS"

"In every field we've worked, Mr. Stephens, you'll find a bunch of wooden wheels—bull, band and calf wheels—in just this shape. Every time one of 'em goes we have to shut down for a couple of days while new ones are sent out and hooked up.

"Now that we've had such good luck with IDECO Steel Derricks, I think we can double it by using IDECO throughout—IDECO Wheels especially. They don't rust, wabble, or vibrate, and will stand all we can give 'em for years to come. Our belts and engines should give twice the power and last twice as long.

"Yes, sir, they cost a little more—but when you figure in their non-stop record and long life they're a lot cheaper than wooden ones."

IDECO Steel Wheels are constructed to combine fine balance and brute strength. Special features, such as IDECO Removable Gudgeons, Rolled Channel Steel Tug Rims with deep V grooves which increase power and prevent slipping.

The International Derrick & Equipment Co.

Columbus, Ohio — **Los Angeles, Cal.**

Tulsa, Shreveport, Houston, Eldorado, Kansas, Casper, Wichita Falls, Bakersfield, Corsicana, Taft, Mexia, Oil City, New York, Smackover

The largest company devoted exclusively to the manufacture of steel (galvanized) equipment for the oil, gas and artesian industries.

INTERNATIONAL STEEL IDECO DERRICKS (GALVANIZED)

THE OIL WEEKLY. Issued weekly by the Gulf Publishing Co., 1716 Dallas Ave., Houston, Texas. Subscription price $1.00 per year; 10 cents per copy. Entered as second-class mail matter December 23, 1916, at the post office at Houston, Texas, under act of March 3, 1879.

As Dependable as time itself!

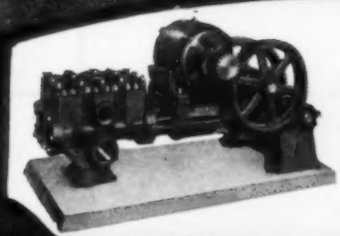
Gaso Pumps were designed by skilled oil-industry engineers. They are honestly built by satisfied workmen. They embody only the highest-grade materials, and are carefully inspected at all stages of manufacture.

No matter what type of Gaso Pump you buy—or whether it be **for field, refinery** or pipeline use—you can bank on absolute dependability. The same sort of service that is making Gaso friends wherever oil is found, you also will receive.

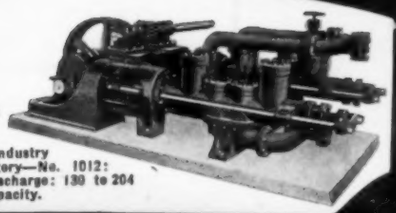
This explains why Gaso wins out so consistently in competition. It is one reason why we have built and shipped nearly 12,000 pumps in the last 10 years. It is why, when one mentions Gaso Pumps, thoughts of strength, sturdiness and reliability come instantly to mind.

Let us send you catalog.

GASO PUMP & BURNER MFG. CO.
TULSA, OKLA.



In the motorization of pumping equipment, Gaso is a pioneer. Full details on this phase gladly given on request.

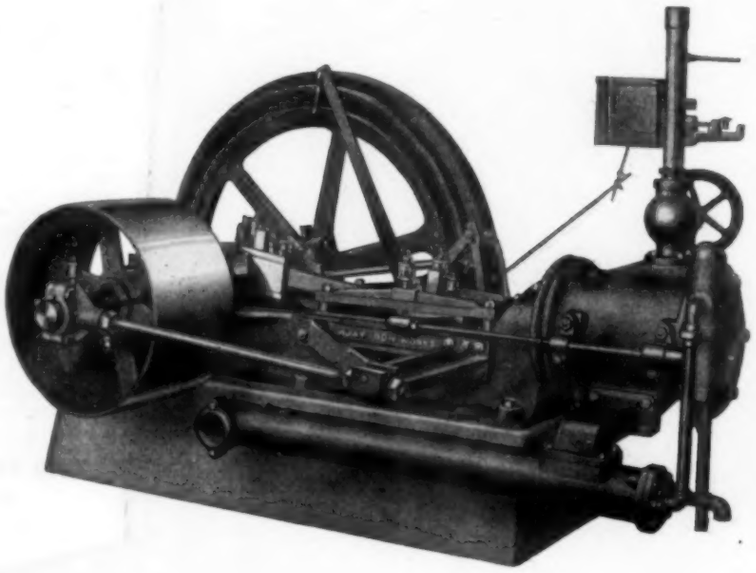


One of the biggest successes in oil industry pump history—No. 1012: 12-inch discharge: 130 to 204 gallons capacity.

GASO PUMPS

FOR EVERY OIL INDUSTRY USE

AJAX STEAM DRI



Genuine Ajax Replacement parts maintain the original value and efficiency of your engine. A complete stock is carried at all National Supply Company branches.

Ajax Engines, Ideal Twin Engines and Ajax-Carson Lubricators are made by

AJAX IRON WORKS
Corry, Pa.

Distributed by
NATIONAL SUPPLY COMPANIES
In every oil field

RILLING ENGINES

How We Make the AJAX Engine

TO begin with we use the best materials. If steel is better than iron we use steel without question. Then we make the parts in the best way. If a forging is better than a casting we use a forging. If a casting is best you may be sure that it is the finest product that modern equipment and expert foundrymen can turn out. Then we machine the parts with all the care of modern precision methods. We then assemble the engine and give it a running test. All this is done in a plant that takes advantage of everything in up-to-date equipment. The men who make the engine have been working at the job for years.

TEST PIECES

These test pieces were turned from an Ajax crankshaft which was taken from stock. Notice the "cup break". Metallurgical tests of Ajax engine parts are part of regular routine in the Ajax plant.

34142

It's Too ¡z¡j? Hot To Write Ads—

But it's never too hot to supply you promptly with

THE LAYNE

SCREENS, PACKERS, SETTING TOOLS, SWIVELS, BACK PRESSURE VALVES, SCREW WASH RINGS, ETC.

The Service Is Always 24 Hours a Day
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and the Phone is
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The Layne-New York Co.
1871 Hudson Terminal Bldg., 50 Church St., New York, N. Y.

Layne & Bowler Co.
Houston, Texas

ASK FOR THE RED SACK—

O. K. Super Oil-well cement is protectively packaged in five-ply paper bags which exclude moisture.

A cement which obtains practically its full strength in 72 hours and is not affected by submersion in salt water.

OK CEMENT

Oklahoma Portland Cement Company

Sales Offices:

OKLAHOMA CITY TULSA

For Rotary Bailing, Swabbing and Handling Collapsible Drills—

The Parkersburg Portable Bailing Machine occupies very little space on the derrick floor and is anchored to the floor sills by rods and plates supplied with the machine. Driven from the drawworks countershaft—either from the fast side sprocket, or from a split sprocket placed along side of the engine sprocket. The exceptional fast bailing, together with the time saved rigging up, assures a decided saving.

Parkersburg Bailing Machines and Chain Driven Sand Reels are made in a variety of sizes and types for use with Rotary Rigs and Standard Cable-tool Drilling Rigs.

Ask our nearest representative for information regarding sizes, capacities, and information as to just how these machines will save money for you. We'll be glad to tell you where there is a Parkersburg Bailing Machine or Chain Driven Sand Reel in a rig—convenient for your inspection.

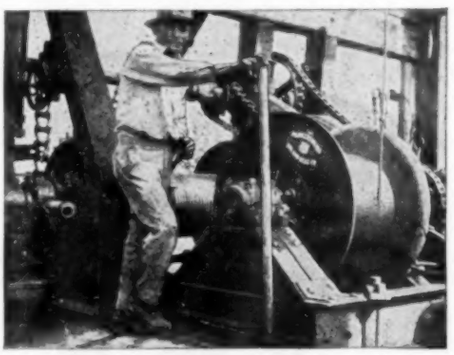
Cut down your expenses by using

Parkersburg *portable* Bailing Machines

Time saved "rigging-up" means money for you! It pays to take advantage of *faster* bailing, swabbing and handling collapsible drills and core barrel carriers.

Easy to Rig-up After the sand line is spooled on the bailing machine drum, the end is passed through a single-sheave snatch block and fastened to the bailer or to the swab—all depending upon the operation. Hook the snatch block to the travelling block, raise the blocks with the drawworks; lock the drawworks and *you're all set!* When you've finished, just skid the machine into a corner. Store the bailing line on the machine drum — the best place for it.

Fast Work The friction clutch on Parkersburg Bailing Machines transmits a remarkably flexible power, permitting faster work than can be safely accomplished with the use of the drawworks drum. The clutch and brake mechanism are interlocked, and are quickly and easily controlled by one lever.



The PARKERSBURG RIG & REEL COMPANY

Main Office and Works, Parkersburg, W. Va. ***New York Office,*** 30 Church St.

California Representatives, BUCK & STODDARD
485 California St., San Francisco, Calif.; Box 720 Arcade Station, Los Angeles, Calif.

District Offices and Distributing Warehouses from which Parkersburg Service is available

TEXAS
*Houston
Best
Breckenridge
Corsicana
Luling
Olney
Orange
Panhandle
Ranger
Wichita Falls

WYOMING
*Casper

LOUISIANA
*Shreveport
Cotton Valley
West Lake

KANSAS
Eldorado
Madison

WEST VIRGINIA
Parkersburg
Clarksburg

OKLAHOMA
*Tulsa
Bristow
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Tonkawa
Wilson
Shidler
Stroud
Wewoka

ARKANSAS
*El Dorado
Louann
Smackover
McNeil

COLORADO
Denver

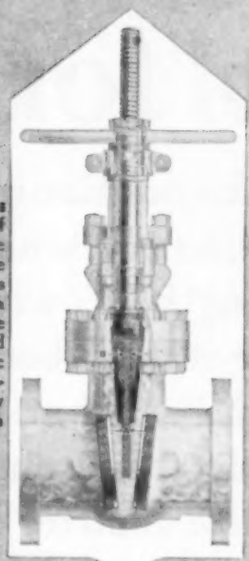
*District Offices

The Disc can't wobble—

IN THE NEW DESIGNS OF LUNKENHEIMER IRON BODY GATE VALVES

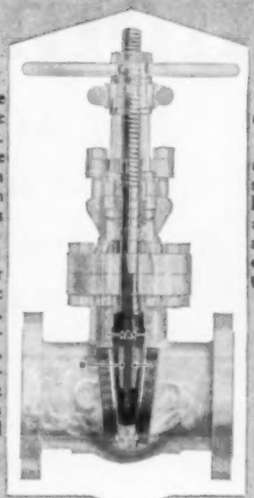
Valve Wide Open

Machined Guides are used in all sizes of Lunkenheimer Gate Valves, including the Standard as well as the Heavy and Extra Heavy Patterns. The ribs (A) in body and grooves (B) in disc are accurately machined, and are fully engaged even with valve wide open.



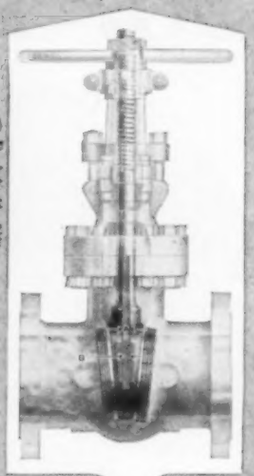
Valve Almost Closed

At this point the tendency for the disc to wobble increases. No wobbling in the Lunkenheimer design—clearance between ribs (A) and grooves (B) is so small and accurately gauged that pressure from either side cannot force disc against opposite seat. Thrust of disc is always against guides, and not against seating surfaces. Disc cannot drag on seats or touch them until valve is closed.



Valve Closes Tightly

And the ribs (A) and grooves (B) are still fully engaged. Disc rides straight and true to its seat and closes instantly, completely cutting off the flow.



Above views illustrate how disc is guided in its travel, and show why disc cannot drag on seats or touch them until valve is closed.

Other Outstanding Features

Face to Face Dimensions — Standard Trade Practice.

Heavy Bronze Seat Rings. **Rings seat against solid walls of valve body—do not depend on a small flange to effect a joint with body.**

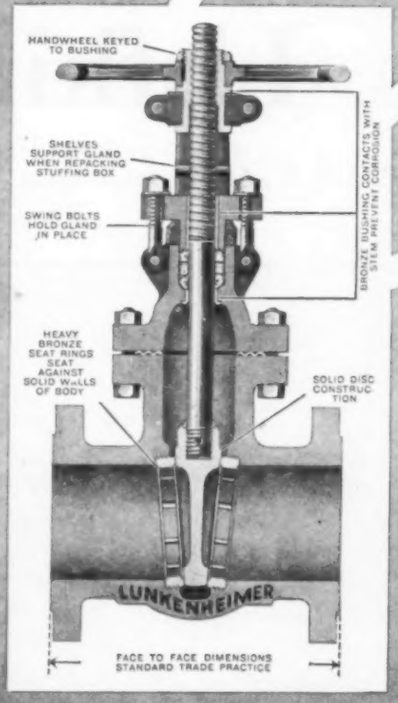
Solid Bronze Disc **in sizes up to 6-inch; iron disc with bronze faces in 7-inch and larger sizes.**

Bronze Bushing Contacts with Stem **through yoke, gland and stuffing box prevent corrodible contact with iron parts of valve.**

Swing Bolts **hold gland in place; entire removal of nuts unnecessary to raise gland.**

Two Shelves **cast within yoke arms support gland when repacking stuffing box.**

Interchangeability **in the highest degree has been attained. All parts are renewable, including the seats and disc. Any replacement part will be exactly the same size as that which is to be renewed.**


HANDWHEEL KEYED TO BUSHING
SHELVES SUPPORT GLAND WHEN REPACKING STUFFING BOX
SWING BOLTS HOLD GLAND IN PLACE
BRONZE BUSHING CONTACTS WITH STEM PREVENT CORROSION
HEAVY BRONZE SEAT RINGS SEAT AGAINST SOLID WALLS OF BODY
SOLID DISC CONSTRUCTION
LUNKENHEIMER
FACE TO FACE DIMENSIONS STANDARD TRADE PRACTICE

Lunkenheimer Iron Body Gate Valves are made in the Standard Pattern, 125 lb. W.S.P. 2 to 24 in.; Heavy, 175 lb. W.S.P. 2 to 16 in.; Extra Heavy, 250 lb. W.S.P. 1½ to 18 in.

Correct design, careful selection of materials and skilled workmanship combine to produce this, the highest development in gate valve construction.

Distributors in all commercial centers carry Lunkenheimer products in stock and render prompt service.

THE LUNKENHEIMER CO.

"QUALITY"

CINCINNATI, OHIO, U. S. A.

NEW YORK CHICAGO BOSTON LONDON

EXPORT DEPT. 129-135 LAFAYETTE ST., NEW YORK

Fill in and mail the coupon for a copy of the new Gate Valve Booklet. It will be sent without obligation.

THE LUNKENHEIMER CO. P. O. Box 676 Cincinnati, Ohio.

Please send me without obligation, copy of the new Gate Valve Booklet. W7

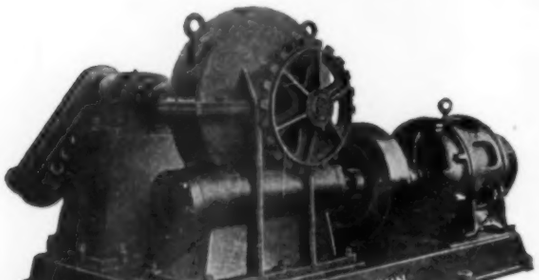
Name.....

Firm.....

Address.....

6-38-89

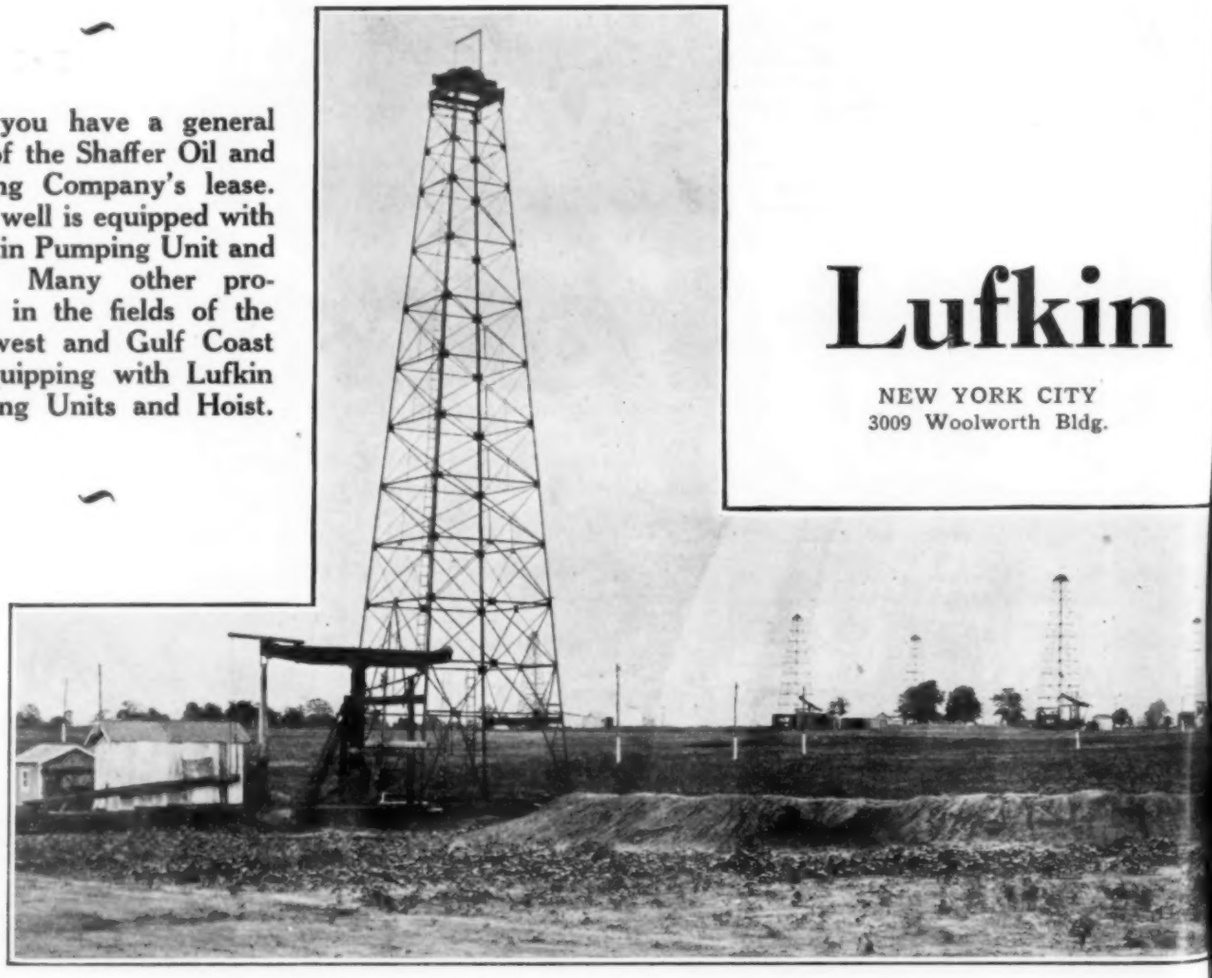
Trial Performance of Unit and Hoist Sold the Co. Equipment for En



Back View Pump Unit—Reduction Gear—Sprocket to Drive Hoist

At the last Exposition in Tulsa, Oklahoma, one unit was bought on the strength of what was claimed for it and because it "looked right". That one delivered results to such an extent that the Shaffer Oil and

Here you have a general view of the Shaffer Oil and Refining Company's lease. Every well is equipped with a Lufkin Pumping Unit and Hoist. Many other producers in the fields of the Southwest and Gulf Coast are equipping with Lufkin Pumping Units and Hoist.

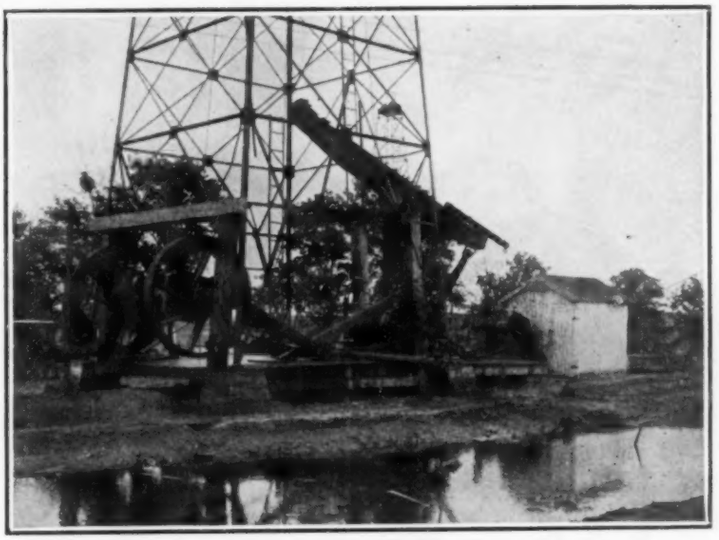


Lufkin

NEW YORK CITY
3009 Woolworth Bldg.

'ONE' Lufkin Pumping Shaffer Oil & Refining tire Field

Refining Company equipped the entire field with Lufkin Units, proving performance to be the best salesman after all.



The photo above shows a close-up view of a Lufkin pumping unit and hoist

If you are interested in this latest development in pumping efficiency and economy, write for complete details and prices

---

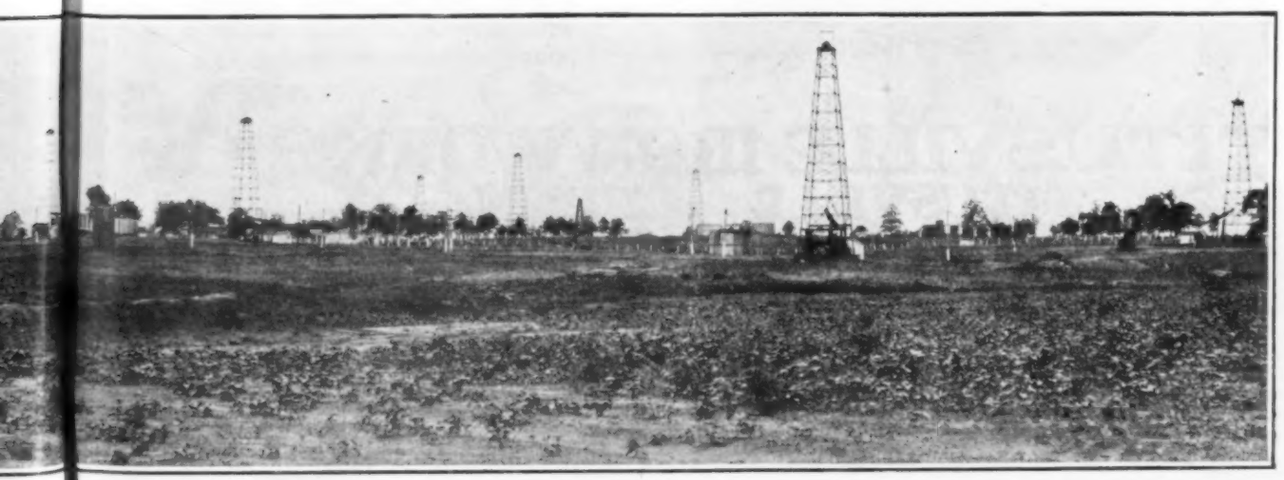
Foundry and Machine Co.

LOS ANGELES
506 Com. Exchg. Bldg.

Lufkin, Texas

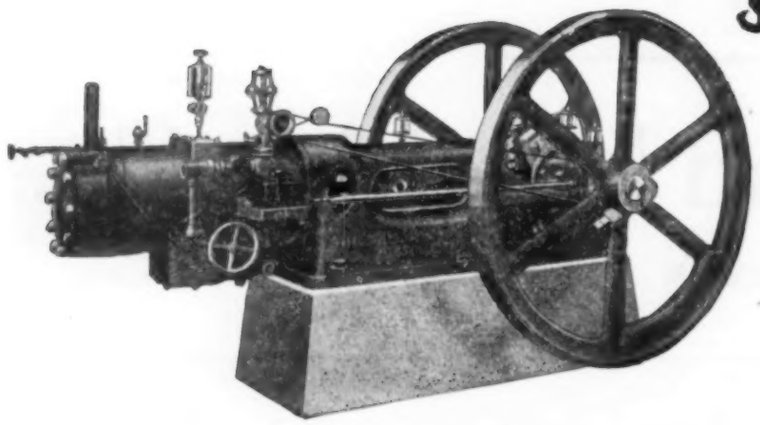
HOUSTON
806 2nd National Bank Bldg.

TULSA
317 Roberts Bldg.



almost FOOL PROOF!

Titusville Tico 2 gas engines



Are simple in construction and design — that simplicity which makes for genuine efficiency. No wonder this well balanced and powerful engine instantly meets the approval of operators.

It pulls the heaviest loads and then some.

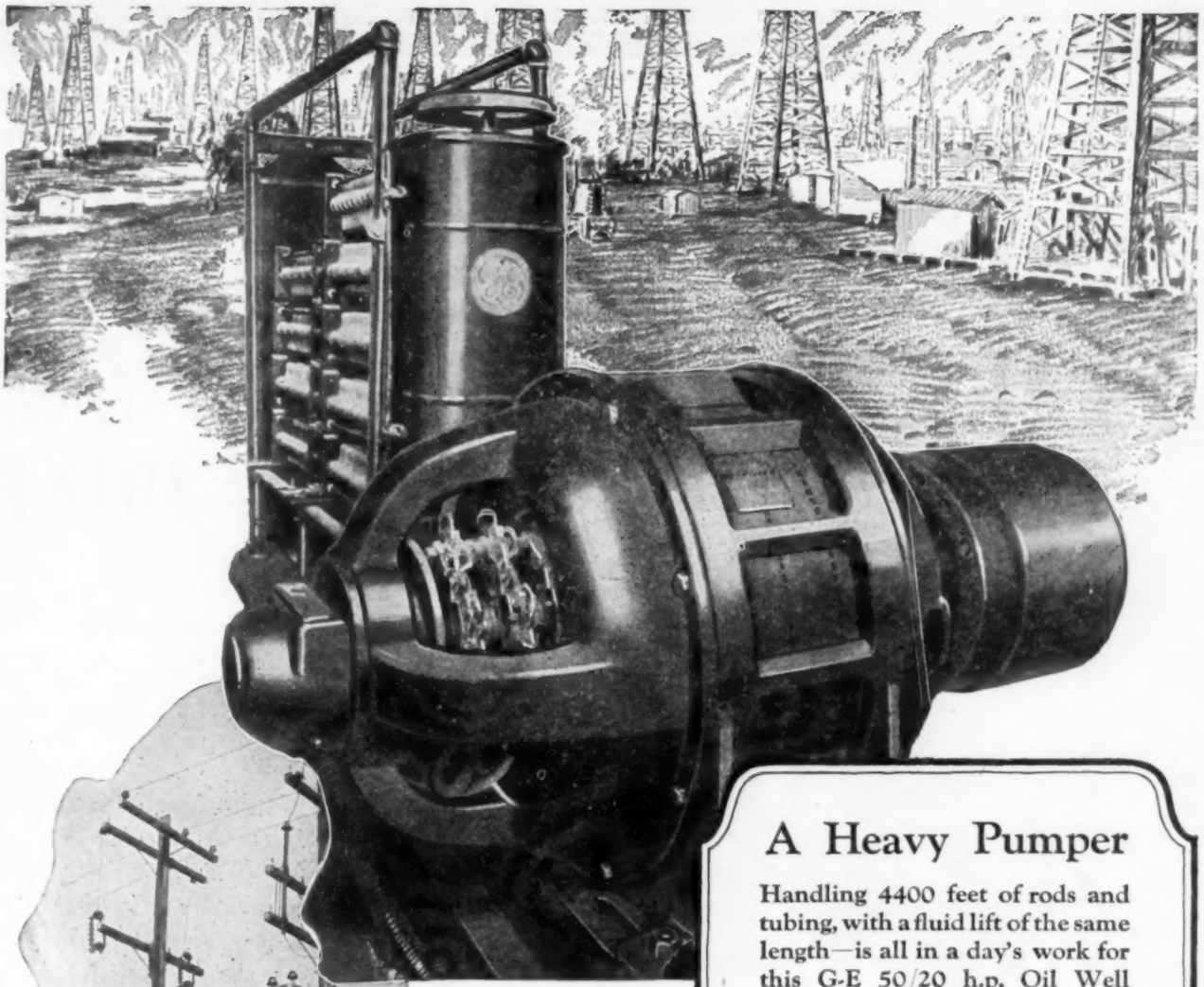
Why not familiarize yourself with the "TICO" and eliminate your gas engine worries?

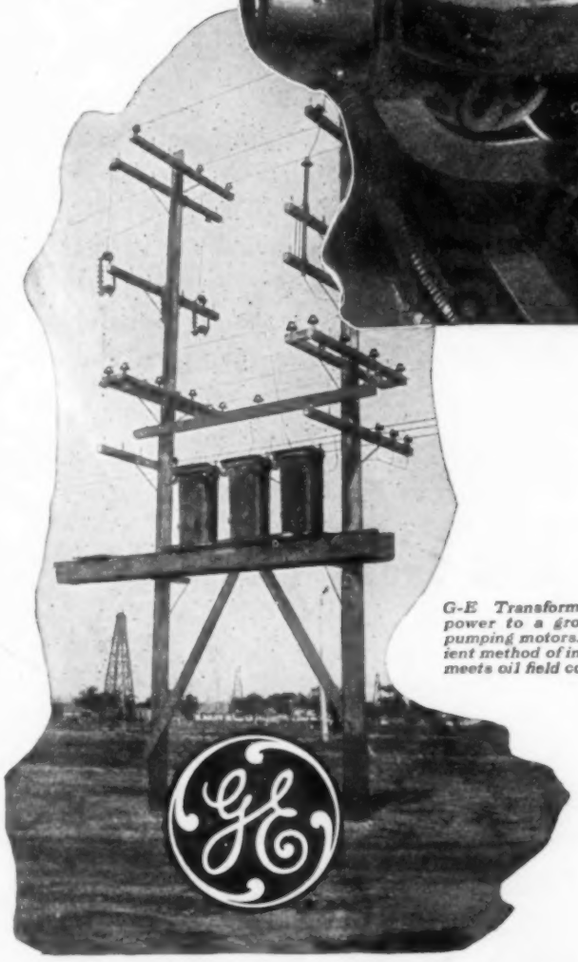
The TITUSVILLE IRON WORKS Co.
TITUSVILLE - PENNA.

TITUSVILLE EQUIPMENT
Oil Country Boilers
Steam Drilling Engines
Tico Gas Engines
Flapper Valve Pumps
Pumping Powers
Twin Drilling Engines
Rotary Machines Rotary Drawworks
Swivels Slush Pumps
Crown Blocks
Traveling Blocks
Rotary Drilling Specialties

TITUSVILLE OIL COUNTRY MACHINERY
RUGGED - ENDURING

AFFILIATED COMPANIES FOR DISTRIBUTION
For Mid-Continent, Eastern, Western and Coastal Fields:
The Continental Supply Co.
For California:
The Republic Supply Company of California
For Export:
The Continental Well Supply Company,
No. 2 Rector Street,
N. Y. City





G-E Transformers supplying power to a group of oil well pumping motors. This convenient method of installation fully meets oil field conditions.

A Heavy Pumper

Handling 4400 feet of rods and tubing, with a fluid lift of the same length—is all in a day's work for this G-E 50/20 h.p. Oil Well Motor. It is operating on the Humble Oil and Refining Company's lease at Goose Creek, Tex.

Throughout the oil fields, G-E Oil Well Motors consistently show low cost drilling and most efficient pumping, pulling and cleaning. G-E standard motors are also widely used for driving water pumps, gathering and line pumps, vacuum pumps and compressors.

G-E oil field specialists and service at Dallas, Denver, Houston, Kansas City, Oklahoma City, Tulsa, Los Angeles, San Francisco.

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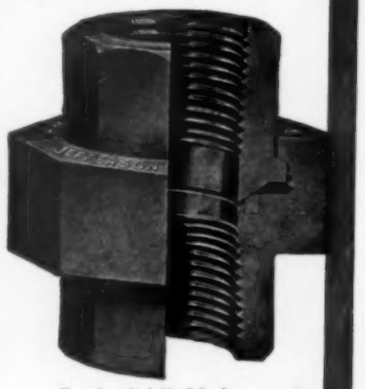
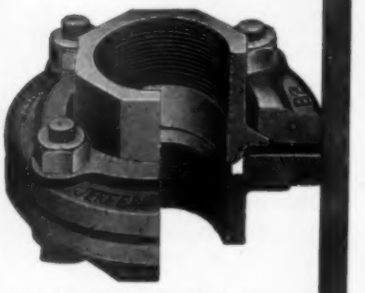
GENERAL ELECTRIC

GENERAL ELECTRIC COMPANY, SCHENECTADY, N. Y., SALES OFFICES IN ALL LARGE CITIES

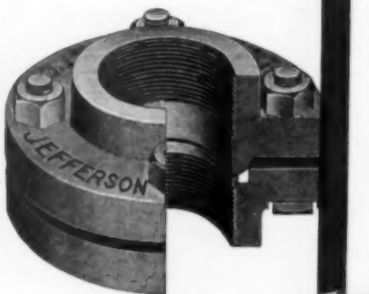
Jefferson



Style "A" Union



Style "B" Flange



Style "D" Flange

THE UNION WITH THE PERFECT-FITTING

Ground-Ball Brass-to-Iron JOINT

Look for the Name on the Nut

There is ONE BEST way to do anything. JEFFERSON discovered the best way to make a perfect-fitting, injury-proof, leak-proof, ground-ball, brass-to-iron joint.

We patented that way.

It is not accidental that, making only this specialized line of small fittings, we have been able to build world-wide sales. The world seldom fails to recognize exceptional merit. It pays to buy the best, and considerations of economy lie back of the tremendous demand for JEFFERSONS. Try them when next you order.

"It CONTINENTAL Sells It There Is No Better"

The Continental Supply Co.

General Offices: St. Louis

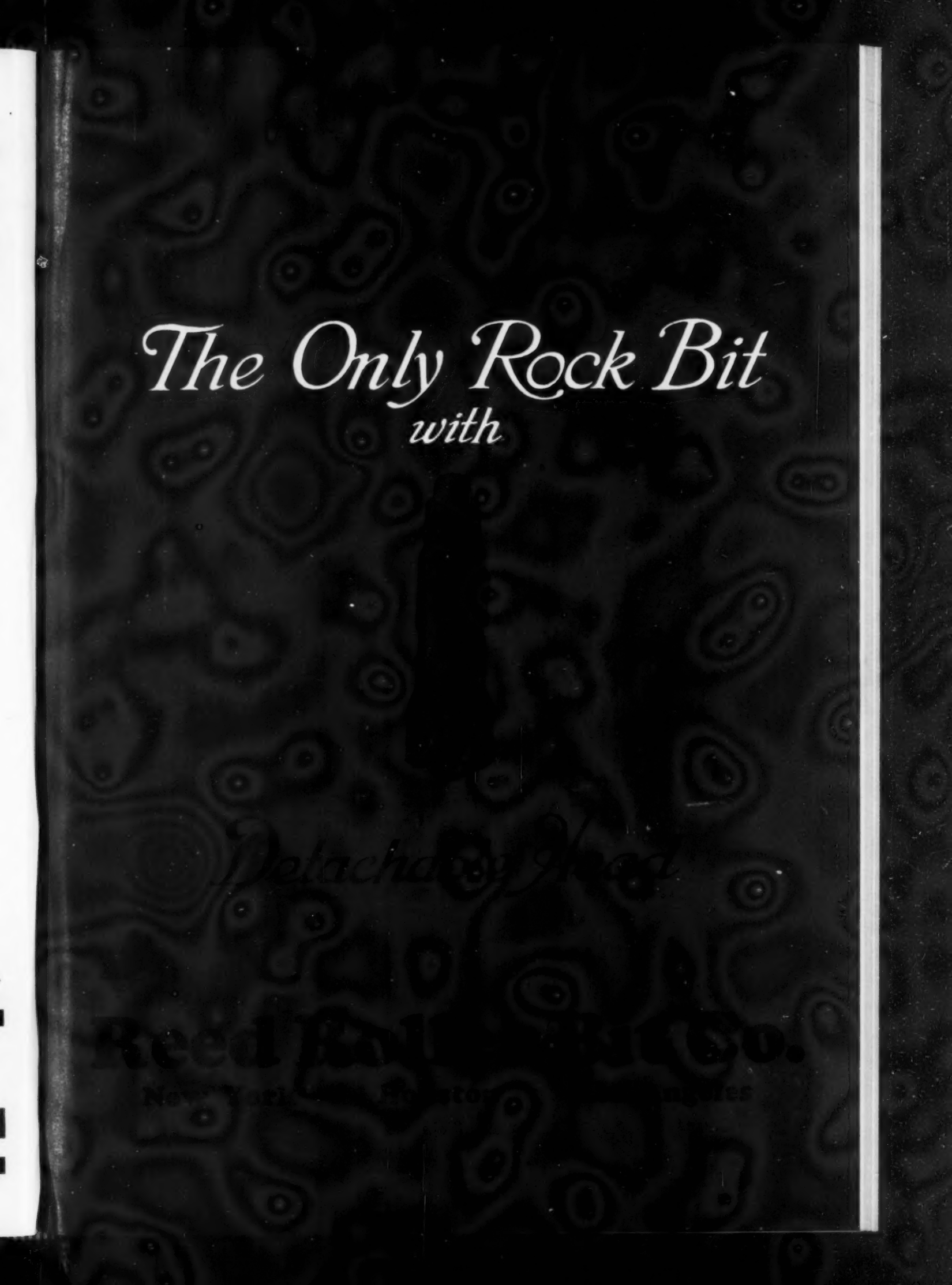
Export Office: 2 Rector St., New York City

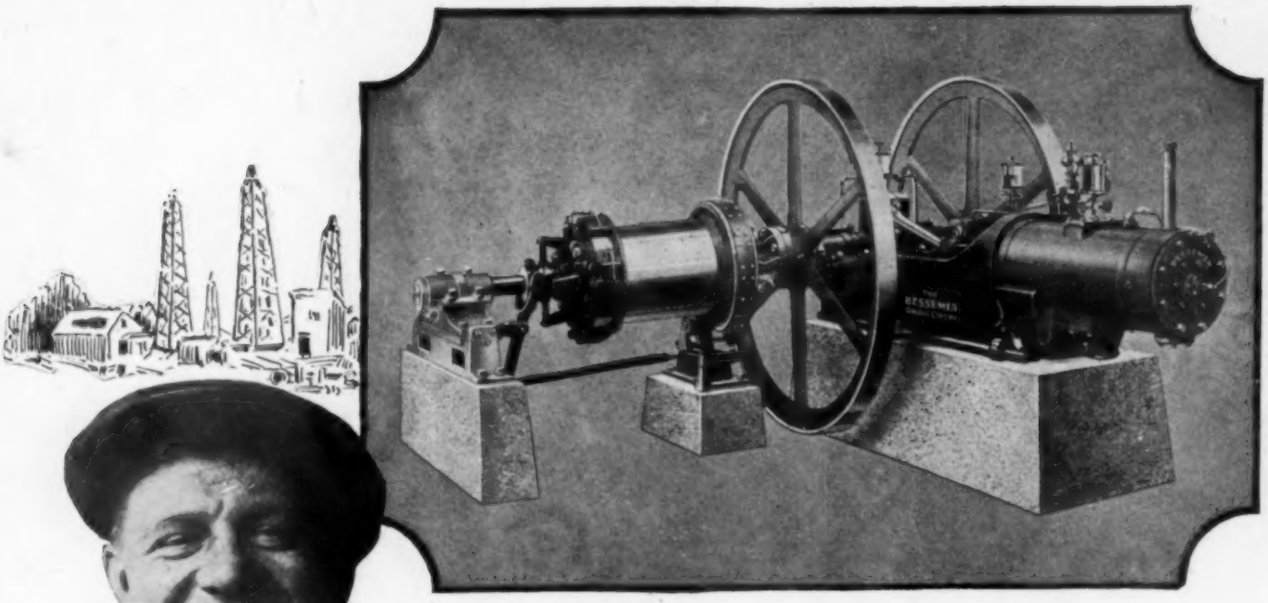
London Office: Finsbury Court, Finsbury Pavement, London E. C. 2, England

MORE THAN 70 STORES IN THE OIL COUNTRY

CONTINENTAL

The Only Rock Bit
with





"It's Surprising how Long a Bessemer will Run"

LONG runs are easy with a Bessemer. Whatever the work they keep on the job year after year, giving day-in, day-out service long after other equipment has been scrapped.

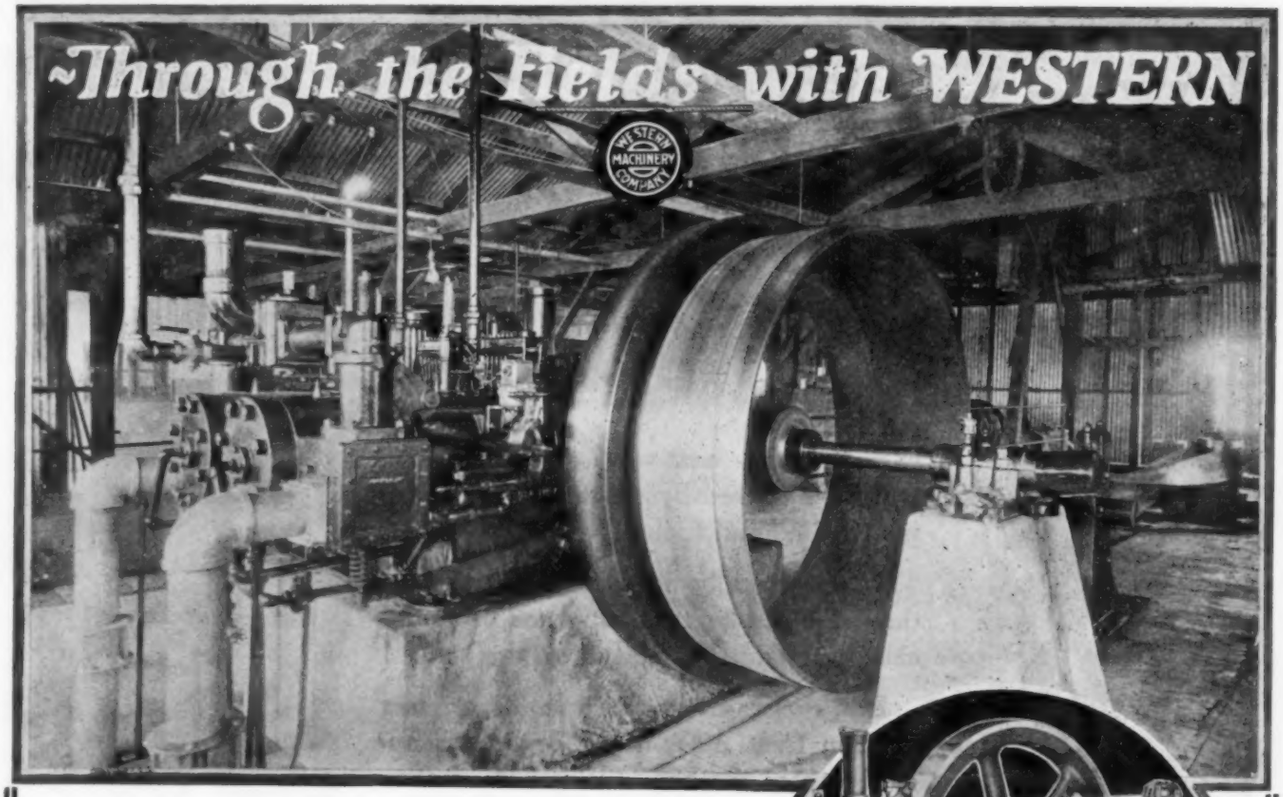
Even old timers in the Oil Industry who know and are experienced with all makes are surprised at the unbelievably long running time delivered by Bessemer engines. As a large Tulsa operator put it, "It's surprising how long a Bessemer will run".

You, too, will cash in on the extra years of service and the lower up-keep cost of your power equipment if you standardize on Bessemers.

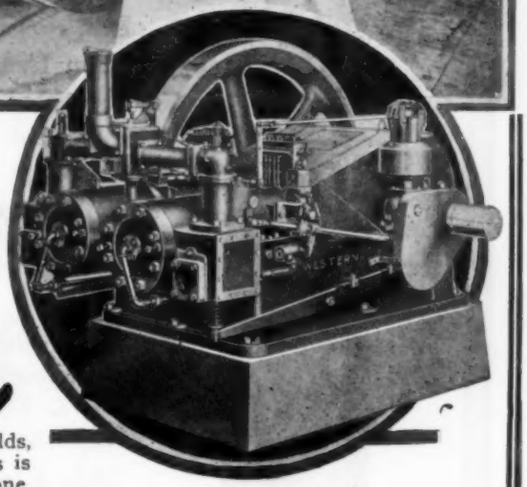
THE BESSEMER GAS ENGINE COMPANY
62 York Street ∵ ∵ Grove City, Pa.

BESSEMER

BESSEMER OIL FIELD ENGINES – COMPRESSORS VACUUM PUMPS – ROLLER PUMPING POWERS



A 40% Reduction in Power Costs,



Where gas is available for fuel, and that is in almost all oil fields, "Western" Gas Engines are the logical power units to use. This is forcefully brought out by a comparison of the power costs of one company, who replaced their power equipment throughout all plants with "Western" Engines.....These are the figures and a portion of the report made upon this matter, taken directly from their annual report.

In 1921 we paid for power $32,190.41
*In 1922 we paid for power 21,383.18
*In 1923 we paid for power 20,345.22
*In 1924 we paid for power 18,434.92

* "Western" gas engines used

"You will note that in 1921 . . . . was nearly absorbed by power costs. In 1922-23-24 . . . . the power cost was diminished over 40 per cent. The reduction of power costs has been largely due to the installation of *gas engines and to other changes which have greatly increased the efficiency of the plants. In this manner we have increased our plant value over $35,000.00 during this period, and . . ."

* "Western"

Note: Portions of the report have been deleted in the above paragraph merely to hide the name of the company and the character of its business. The complete information will be supplied upon request.

Economy is a built-in feature of "Western" Gas Engines for oil country work. Like "Western" Quality and "Western" Dependability, it is a part of the engine. And "Western" Engines have reduced power costs in so many instances that we feel there is none other than a "Western" equipped power plant in which power costs cannot be reduced by "Western". At least, we are willing to make a thorough survey of your plant and costs, and submit a complete report to you, without cost or obligation on your part.

Western Machinery Company

General Offices and Factory: 905 North Main St.
Los Angeles, California, U. S. A.

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Tulsa, Oklahoma.

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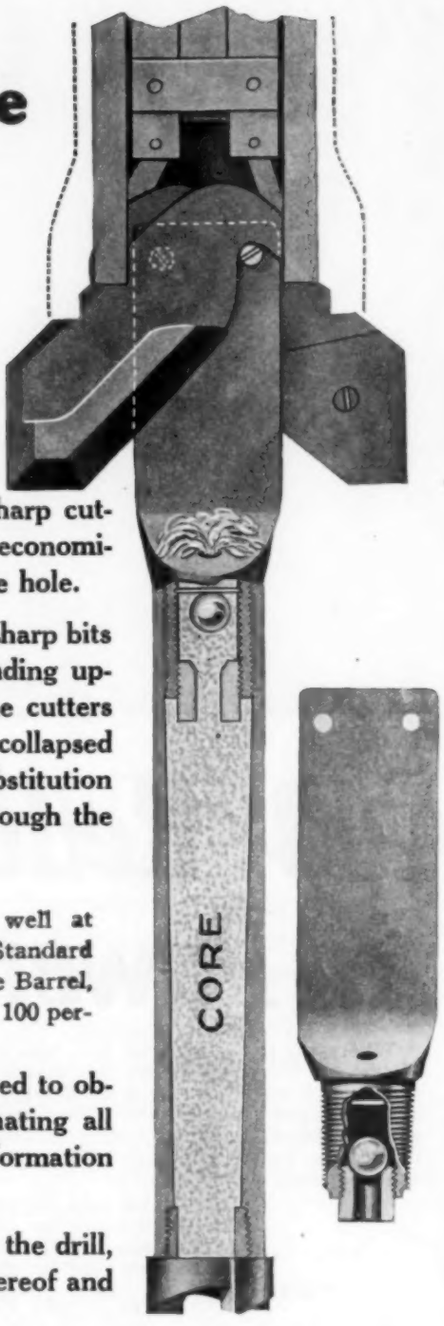

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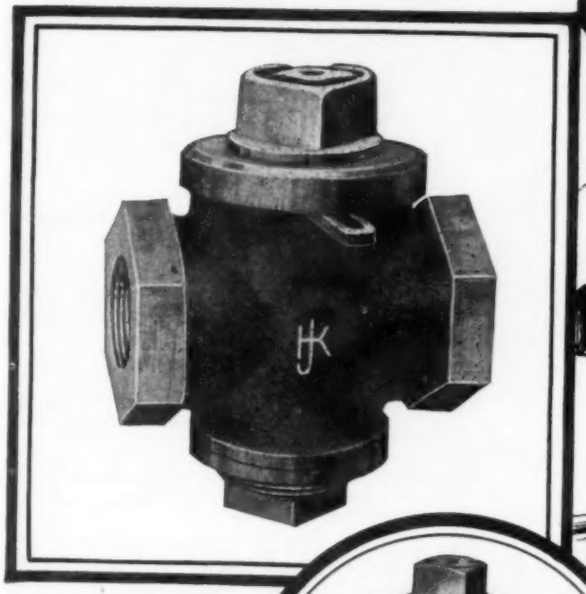
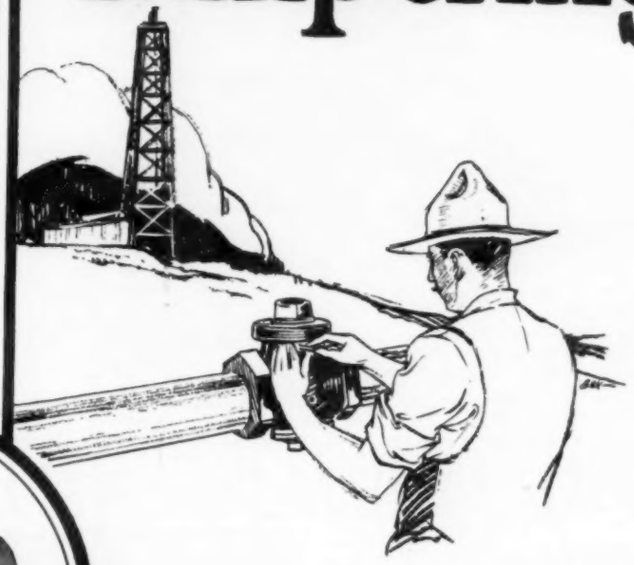
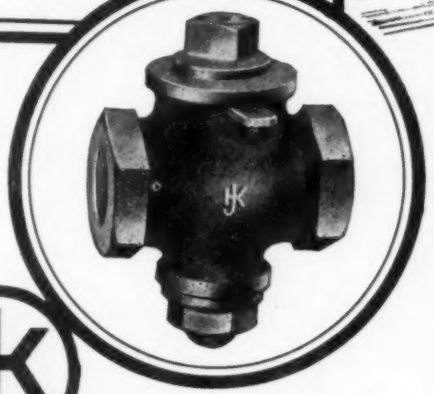




Upper—Fig. 491, Essex Lock Iron Cock, Extra Heavy Pattern.

Right—Fig. 490C, Essex Lock Iron Cock, Light Pattern. Threaded end of key has large oval end projecting beyond nut which allows key to be loosened with blow of hammer or wrench without damaging thread.



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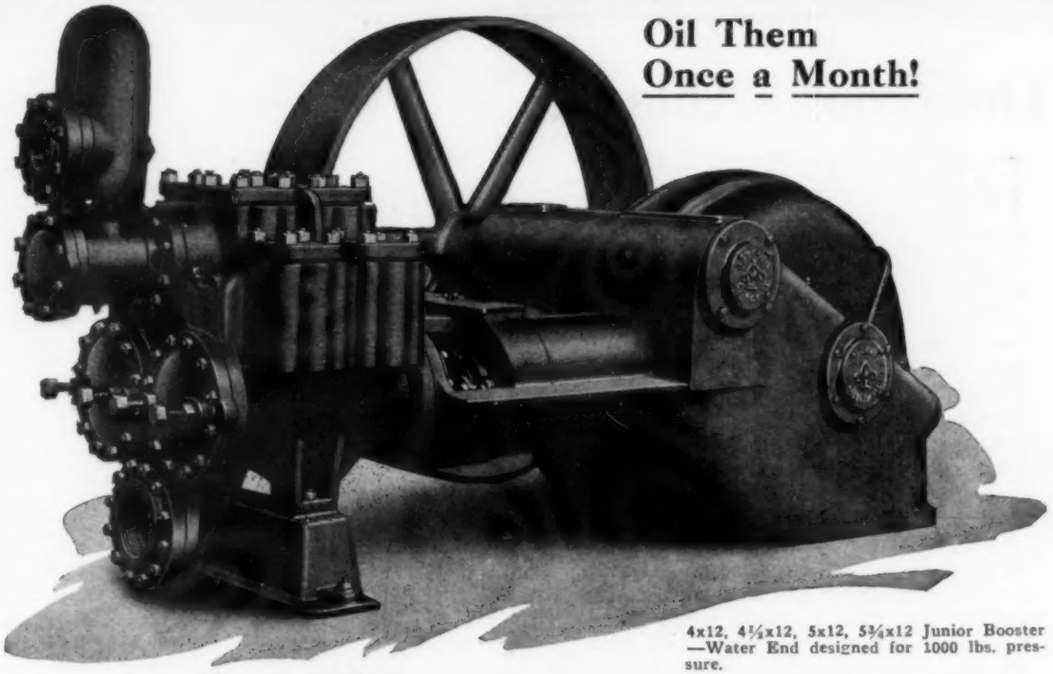

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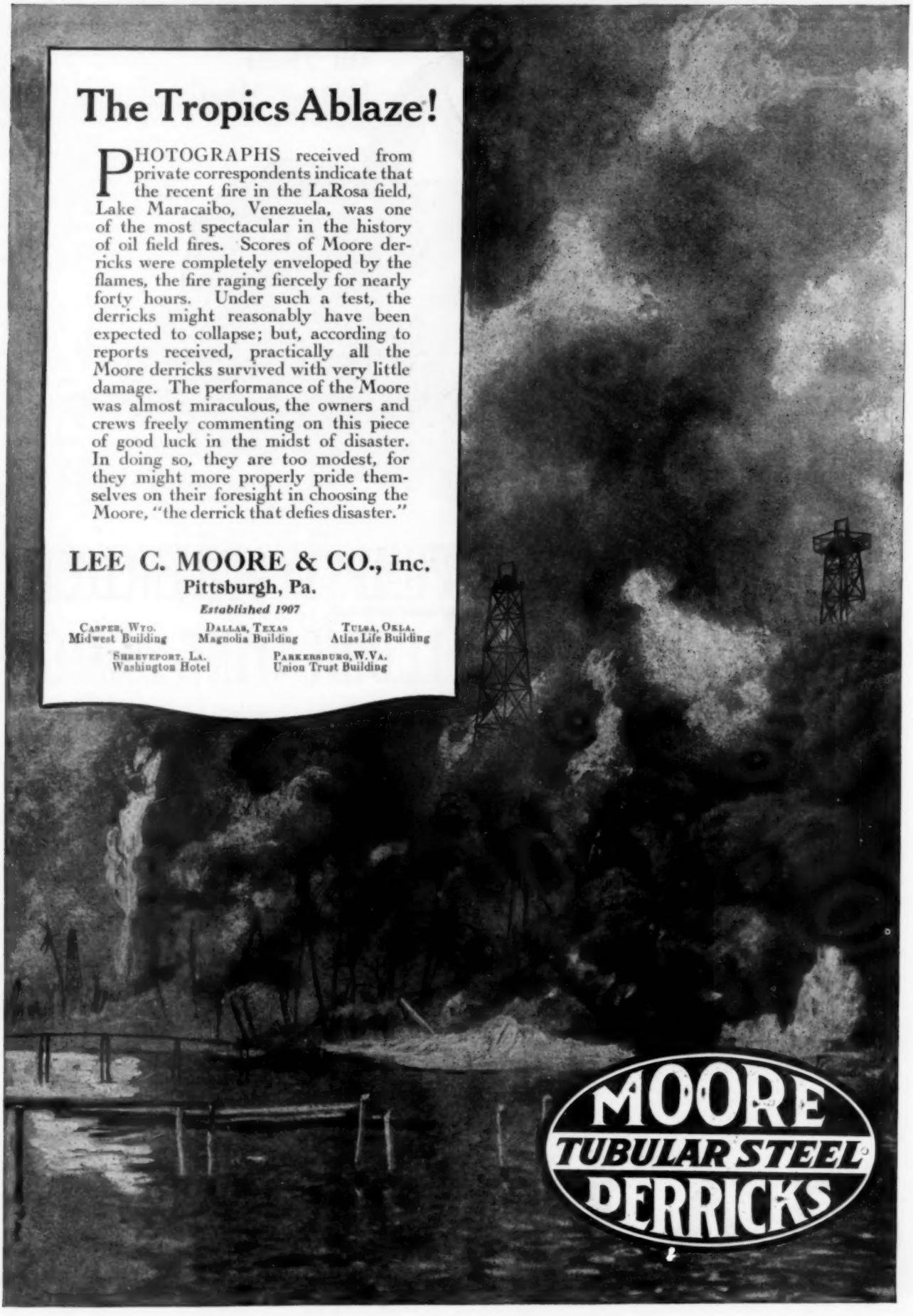

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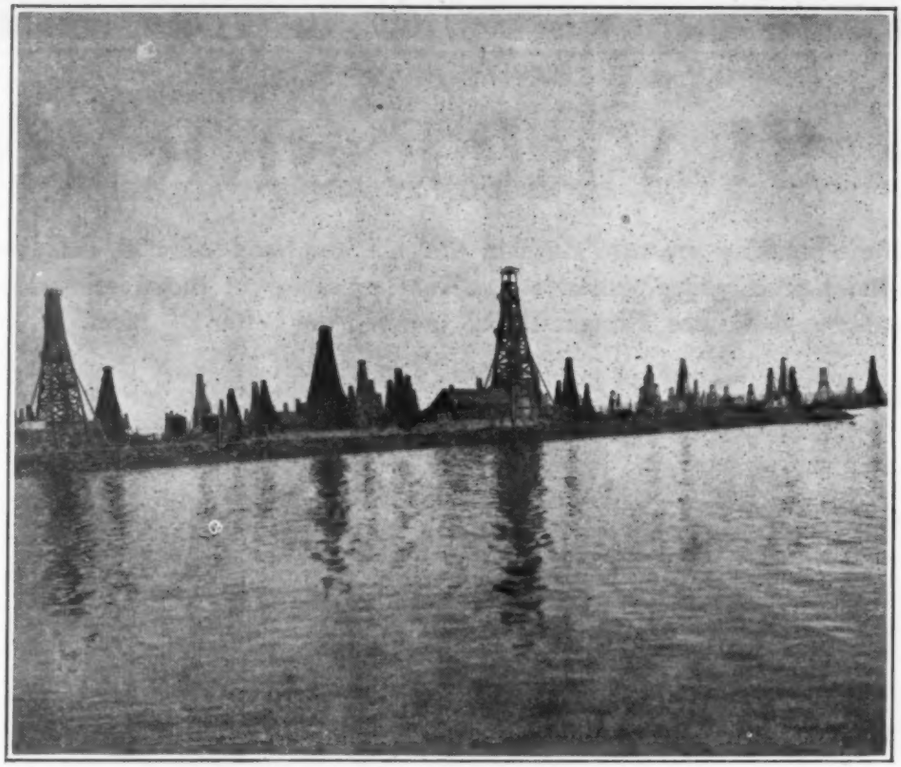

Scene in Russian Oil Fields

The OIL WEEKLY

August 21, 1925 Volume 38, Number 9

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Refining Efficiency Curtails Demand For Crude

Mid-Continent refiners reducing runs and eagerness of buyers for new connections is lacking

By Grady Triplett
Staff Representative

Tulsa, Oklahoma.—With crude oil prices falling in other quarters, indications are that the price structure of the Mid-Continent will yield to the pressure within a short time.

Lower prices on Eastern crudes are an indication toward lower prices in the Mid-Continent. But there are economic factors that weigh more heavily as evidence supporting a drop in prices. These are reduced runs by Mid-Continent refiners; apathy of the major pipe lines concerning new well connections; and the increasing efficiency of cracking methods for extracting higher gasoline yields from all crudes.

Accurate figures for the whole refining industry of the Mid-Continent are not available. Only a part of the refiners will make reports to the several organizations gathering statistics on crude oil runs. The figures available only show the trend of the crude oil outlet.

From sources as accurate as conditions afford, it is known that crude oil runs to Mid-Continent refineries are 25,000 barrels a day less than they were August 1. The bulk of this has been in Kansas and North Texas. Unless Oklahoma refiners have changed tactics with this week, they are still running at record totals. But it seems inevitable that Oklahoma refiners, like others of the Mid-Continent, must reduce still throughput at their plants.

Observers of this phase of the market expect crude oil runs to be 50,000 barrels less by September 1 than they were July 15. While this figure can not be accepted as anything short of a guess, it is not unreasonable.

For refinery runs already have been reduced in Kansas and North Texas. That Oklahoma refiners must reduce runs is accepted as certain. The spot market bears in that direction, although two months of high gasoline consumption are yet on the calendar.

Aside from the spot situation demanding reduced refinery throughput, the end of the motoring season is only two months away, and good business does not admit of refinery operation that will bring a heavy stock reserve at the first of October.

To whatever extent independent refining plants of the Mid-Continent reduce their runs, that much more oil is sure to be offered the several major buying agencies. And these already have shown their position in that matter by failing to rush for the new connections available because of the present reduction in refinery runs.

In three instances the major purchasers have refused new connections. Each of these was a case where lines would have to be laid short distances. But in neither case was the distance so great that a pipe line concern would have hesitated on a bullish market.

Three instances do not make or break a market. But the general attitude of the pipe line concerns is not aggressive. No solicitation of connections is taking place. Inducements for connections have not been evident for some six weeks.

Crude oil is not in demand in the Mid-Continent. Buyers are shunning it.

This one condition is the strongest indication of a lower price scale within the present month.

Facts of the yield of gasoline from crude oil properly belong to the refining industry. But the tendency of refining has a message for the producer, for month by month in the Mid-Continent it is taking less crude oil to produce a given amount of gasoline.

The wider use of cracking processes is responsible for this. Back in 1918, the average yield of gasoline in Oklahoma was 30.3 per cent. By May of 1924 the average yield had risen to 42.8. This growth has been accomplished by only a few of the refining plants of the State adopting cracking methods. As more plants come to the adoption of this type of equipment, the part of each barrel of Oklahoma crude that is converted into gasoline will grow.

More Gasoline Recovery

This does not mean that additional crude oil supplies are not necessary for furnishing gasoline to a greater consuming public. But it does mean that it is not necesarry to produce crude oil in proportion to the growth of the use of gasoline. Cracking processes are converting so much more of a barrel of crude into gasoline that the producer must accept the position of furnishing only what the refineries can use, rather than what would have been necessary without the introduction of new equipment.

What the cracking processes are doing to crude oil and in turn to the producer of crude oil shown in the following table:

(Average part of barrel of crude oil converted into gasoline by Oklahoma refineries):

Year	Per Cent
1918	30.3
1919	31.13
1920	31.25
1921	33.7
1922	36.5
1923	38.5
1924	40.1
1925—	
January	41.3
February	41.3
March	42.15
April	41.74
May	42.8

And these percentages on gasoline yield should continue to rise. Whether it is true or not, refiners have the opinion that the only sure method of profitable operation of their plants is by the addition of cracking stills. And the tendency is toward building more cracking units.

Under this condition, it requires no far stretch of the imagination to contemplate a time when half the crude oil that goes into the stills of Oklahoma refining plants will be converted into gasoline. What is true for Oklahoma is true for other parts of the Mid-Continent, as well as for other oil producing territory.

The growth of cracking units is too slow for the producer to worry over it for a short period of the remainder of this year. It is something for each year.

Stocks Not Excessive

On the reverse side of this picture is the fact that gasoline stocks in the Mid-Continent are not excessive. Due to heavy buying. The fuel oil market is active, with prices upward. Distillates for home heating plants are active, so far as provisions for the winter are concerned.

These conditions, however, are in favor of the refiner, rather than the oil producer. The Mid-Continent refiner is reducing his runs. He has only limited gasoline stocks. Demand for both fuel oil and distillate is good.

But the oil he will turn back on the producer lends to the opinion that the present price structure can not hold.

Outside of Oklahoma, the Mid-Continent has no oil fields that threaten to bring additional oil to the surface. Nothing certain can be said of Oklahoma. But the Garber and Braman fields are potential producers of large totals of light oil.

Producers in the Mid-Continent are secretly expecting a cut in crude oil prices. Conditions seem to bear out their expectations.

EDITORIAL COMMENT

The Dope's Upset

STATISTICIANS have a place in the oil business the same as in all lines where supply and demand are factors. Figures on gasoline consumption for past years have been compiled and compared, and it has been shown the present year by early months' consumption that the expected gallonage increase is being obtained. The output of new cars is gratifying to the oil industry, and everything points to an increase in gasoline demand that would require current output of crude oil.

And yet the price is falling—in obedience to the well known law of supply and demand.

Refinery sales managers for some weeks back have been reporting a hesitancy on the part of jobbers to buy gasoline, but the fact that millions of automobiles are running every day and using gasoline in larger quantities perhaps than ever before in the world's history, would tend to the belief that some sales managers have been filing orders while others were talking. There has been enough gasoline to make it a buyers market and refinery salesmen do not do much talking in such times.

Three items have entered to upset all the dope of the statisticians, important in the order named:

Increased gasoline yield from crude, through better refining methods;

More efficiency in automobiles—greater mileage per gallon of gasoline and less consumption of lubricating oil, and

Better roads which assist further in increasing the miles per gallon.

Refineries are rated according to charging capacity, which is all well enough for the producing end of the business. It is presumed that by knowing charging capacity and the percentage of operation, that the producers' potential market is a known factor for the statician's calculations. But the figures do not mean anything when the operation of the refinery is contingent upon its sales.

Sales of course are dependent upon the product manufactured, and of late days refineries are getting to be very individual in that respect. Efficiency of plants has become a matter of the human element—regardless of processes and crude run. One plant can take the same conditions and make more gasoline through the technical skill of its operators. Gasoline output, then, has become statistical data to be computed only after the figures are made, not in advance.

Even more so are the figures on consumption getting to be hard to determine in advance. Knowing that so many cars are on the road does not mean anything. There are too many kinds of cars operated by too many kinds of people to know what their probable consumption of gasoline will be. The cars are better and their drivers know more about their condition. Road taxes have helped increase the price and the public mind is disposed to the idea that gasoline costs too much, which tends to economy. Getting more miles per gallon is almost as interesting as making a low score around the golf course.

And just when the industry was contenting itself that a large part of recent flush production was heavy oil, along come a report that the Gulf Coast where oil is heavy is the one big potentiality for future oil production. How much gasoline is being made from Gulf Coast crude oil is not known because the plants that make it have some secrets, and really it is their business. But it is known that some plants that do not run any other oil have a good gasoline business and some users who swear by the product. "No gasoline content" is another phrase that is passing out of the language, just after Smackover's peak.

For the time being figures on future crude oil requirements are upset. The law of averages persists, of course, but right now it is in a transitory state, and by the time a new basis for calculation is established the present emergency will have passed.

The refiner who buys the producers' oil has lowered the cost of his raw material through efficiency in his methods. The user of the finished product is tending in the same direction. To maintain his place in this economic scheme it is up to the producer to lower his costs through attention to the details of his operations and more conservatism in seeking out new production for a market that is over-supplied.

Pollution Again

EFFECTIVE action dealing with the elimination of oil pollution of coastwise waters is awaiting the development of easily portable machinery for the separation of oil and water, Secretary of Commerce Hoover declared this week, in discussing the activities of the government in attempting to deal with this problem.

Various agencies of the government, he said, have been engaged in research along this line of oil pollution of waters, but without success so far.

Development of separation machinery which could be carried aboard oil tankers and oil burning vessels, Secretary Hoover said, would be followed at once by the calling of the international conference for the discussion of oil pollution provided for in a resolution passed by congress several years ago. Foreign nations also are carrying on research work along this line, he said. Until such machinery is developed, it was declared, little or nothing could be accomplished by the calling of the proposed conference, which will have to offer a means for disposing of oil waste before pollution can be suppressed.

Recovery of Known Supplies

THE report of the A. P. I. committee made to the President's Oil Conservation Board indicates that the future supply of petroleum can be drawn, for a number of years at least, from the partially depleted oil sands which are now or have previously yielded production. Devising means for economically recovering this oil which has been left in the ground will be up to the engineering skill of the producing branch of the industry. How well it is able to cope with such a situation is seen in the development of means for economically recovering oil from depths thought impossible only a few years ago. Necessity for this oil and a price to justify its recovery is all that will be required to produce the means, and it is entirely possible that methods may be devised that will not entail the hinted additional cost. Economy in refinery recovery points to possibilities in the producing branch as well.

New Gravity Differential Schedules Made by Humble and Magnolia

Weakness of gasoline market reflected in lower prices paid for higher gravity crudes

By J. Kent Ridley,
Staff Representative

DOWNWARD revision of posted price schedules in important sections and fear of this action extending generally to the Mid-Continent section, featured the crude market during the week. Meanwhile the gasoline market was showing still further alarming softening tendencies, and tank wagon and service station prices were cut in the East.

Another development is a change in the attitude of purchasers toward higher gravity crudes, as expressed in the announcement made by R. L. Blaffer, vice-president of the Humble Oil & Refining Company in connection with the posting of Humble's new schedule as shown on the crude market page in this issue, and the removal of premium prices paid for Garber, Oklahoma, crude, under the leadership of the Sinclair Company. The announcement of reasons assigned by the Humble for its change of premium schedule follows:

"In posting new prices for crude, this company has given due consideration to the present market value of products. As the market value especially of gasoline is lower than that prevailing at the time the one degree gravity schedule of July tenth was put into effect, it must be apparent to every one that the crudes of lighter gravity and greater gasoline content are of relatively less value. We have posted this differential of six cents per degree in place of eight cents per degree gravity as representing in our judgment the relative value of the crudes of various gravities."

Magnolia Petroleum Company followed the Humble lead with a schedule which differs but slightly in the lower gravities. Other purchasers had not followed up to this (Wednesday) morning, but producers in the sections affected were expectant, as are the producers throughout the Mid-Continent light oil area.

Gasoline Rules Situation

As mentioned in the Humble's announcement, the recently arranged one-degree gravity differential is designed to react promptly to the gasoline market. It is significant that the two companies which cut the Texas price are buyers of crude to be refined for shipment to the Atlantic coast as well as for refineries of affiliated companies operating refineries in that section. This places them in competition with all oil accessible to the Atlantic seaboard and a reduced gasoline market in the East. On the other hand, the other larger purchasers in the Mid-Continent are supplying refineries whose tank wagon in the Central West has held and which all concerned are interested in holding.

The cuts in Eastern grades accordingly affect the two purchasers of southern Mid-Continent oils more than the buyers farther in the interior.

Little comfort is to be had from the loss of total production in the United States, because of the increase in Oklahoma and other light oil producing sections, which makes a gain of 13,227 barrels in light oil as against a loss of 22,385 barrels in heavy production accounted for in Arkansas.

New work is largely confined to necessary wells as a result of the uncertainty of the market, and in Central and North Texas land departments have been instructed to hold up their activities in acquiring acreage.

Still further reductions of crude runs have been made and are being made by independent refiners. The efficiency of cracking processes naturally results in refinery curtailments being largely of crude run to straight stills, which means that the reduction of crude runs does not affect the gasoline output in full ratio to crude not taken.

The California market is not very strong. In fact the cuts in Eastern crudes and the reduction in retail prices of gasoline in the Eastern States are having a rather bad effect on the West Coast. All crude offered is being taken care of, but there is no disposition on the part of the big companies to seek new connections. The decline in production the past week was the one ray of sunshine, and another decline next week would be of great help. Word is coming to Los Angeles that large producers in the Mid-Continent are expecting a cut in crude prices in that district. If this cut does not exceed 25 cents and if California production continues to decline, it is possible that it will be able to get "by" without a cut, at least for the next two or three months. It is generally believed that Inglewood has reached and passed its peak and the production in this field should be below 100,000 barrels by middle of September. The completion of the Obispo Oil Company well in Maricopa Flats in Kern County, which sanded up, is causing no real alarm, since it will take other companies at least three months to drill to completion offset wells—and they may not be large wells.

Natural gasoline continues to exhibit strength, while straight run gasoline is slightly weaker.

Market Situation Limits Work

Fort Worth, Texas. — Successful completion of two good wells in the Big Lake field, Reagan County, boosted production of this area slightly more than 3000 barrels during the week.

Big Lake Oil Company's No. 33 University struck the pay horizon at 2927 feet and was drilled to 2952 feet, when it flowed 370 barrels during the first 12 hours. This well is making a small amount of water.

University 42 topped the pay at 2882 feet and was drilled to 2912 feet. Production gauged 110 barrels per hour.

Both of these wells are on inside acreage, but will probably result in offsets being drilled.

In spite of the cut in the price of crude throughout the North Texas district, there seems to be no apparent let-up in drilling at this time. None of the other companies have met the Humble's cut, though a reduction by other purchasers of crude in this territory is expected.

New locations last week totaled more than 120, and the most of these were to be started immediately. Of course this is not an unusually large number for territory as extensive as that including the fields throughout North and Central West Texas, but there is apparently no falling off in field work.

However, in checking this list of new locations, it is obvious that most of the work is to be done in old fields and much of it is compulsory, such as offsets and wells necessary to hold lease contracts.

Few of the major companies are acquiring any new holdings, being content instead to watch the results of work now going on, until the market situation is better.

A dry hole completed by Cranfill and Reynolds, in Callahan County, is taken as indication that production will not be found within the city limits of Cross Plains. The well was known as School Lot No. 1. It struck a sand at 1420 feet and was drilled in four feet, but then filled up 300 feet with salt water. There was a slight rainbow of oil on the water, but the hole was abandoned.

Future Supply Largely Dependent on Production Methods

26,000,000,000 barrels to be left when pumping and flowing in present fields have ceased

IN submitting its report to the Federal Oil Conservation Board the American Petroleum Institute has briefly summarized its findings on the various subjects discussed. Probably the most interesting of these answers is the one devoted to future petroleum supplies.

The major phases of the report on supply are as follows:

An estimate of a future production of more than five billion, three hundred million (5,300,000,000) barrels of oil from existing wells and from acreage these wells prove to be oil bearing, by present methods of flowing and pumping. This estimate was reached through detailed examination of the performance of every oil field in the United States:

An estimate that when pumping and flowing in present fields shall have ceased, there will remain twenty-six billion (26,000,000,000) barrels of oil, a considerable portion of which can be recovered through known methods, and a discussion of what has already been accomplished in this respect.

A discussion of the probability of the existence of undiscovered oil sands beneath existing oil fields, which improved methods of deep drilling have now placed within reach, and from which new oil supplies will be obtained:

A statement, arrived at after detailed study, that there are in the United States more than one billion, one hundred million (1,100,000,000) acres of land of geological formation favorable to the presence of oil. Within this area new fields will be found. There are approximately 827,000,000 acres where oil is not possible:

An estimate that there are within the United States about three hundred and ninety-four billion (394,000,000,000) short tons of oil shale, from which about one hundred and eight billion (108,000,000,000) barrels of crude shale oil can be recovered, yielding twenty-five billion (25,000,000,000) barrels of motor fuel:

A minimum estimate of five hundred and twenty-five billion (525,000,000,000) barrels of liquid products from the country's deposits of coal, yielding an estimated ninety-two billion (92,000,000,000) barrels of motor fuel:

An estimated yield of seventy billion (70,000,000,000) barrels of liquid products from the country's lignite deposits, twelve billion (12,000,000,000) barrels of which could be used as motor fuel:

A discussion of "waste" in the production of oil, and of present drilling practices and of methods of developing oil fields.

The Supply Committee of the Committee of Eleven does not undertake to forecast in specific terms a total future supply of crude oil, nor production by years. With respect to the volume of oil from existing wells and proven fields, an actual estimate—five billion, three hundred twenty-one million, four hundred twenty-seven thousand (5,321,427,000) barrels—is made, for here there are ascertainable facts, from a study of the various fields and from experience, on which to base the estimate of probable yield. So also with the oil which will remain in the ground when present fields have ceased to produce through flowing and pumping. Here again there are facts of experience at hand, and the estimate of twenty-six billion (26,000,000,000) barrels remaining is arrived at. This means that it is estimated that two barrels of oil will remain in the ground for each barrel previously produced. It is also possible to justify estimates of yields of liquid fuel from shale oil coal and lignites. But as to future production from the yet undiscovered oil fields the Supply Committee makes no estimate. The report says:

"Due to the nature of the occurrence of petroleum and to the probability that the greatest part of our reserve is yet undiscovered, an estimate of this kind would necessitate an understanding of conditions which could not be brought to light even by the most careful survey possible over the entire United States."

The producing and proved area in the United States now totals 3,244,581 acres, from which the present (week ending July 18, 1925) daily recovery is 2,115,000 barrels. The area within which oil may yet be found totals slightly over one billion, one hundred million (1,100,000,000) acres, while the geologically unfavorable area totals 827,790,000 acres. These figures justify the conclusion of the Committee on Supply that:

"An estimate of reserves which are to come from fields yet to be discovered involves so many uncertainties that it would be grossly inaccurate and misleading."

The last general survey of the oil resources of the United States, made in 1921 by the United States Geological Survey in co-operation with the American Association of Petroleum Geologists—a most thorough and painstaking effort—was proven within twelve months, despite the best efforts of the best minds available, to be a gross underestimate. The reserves of California from producing wells and proven areas were then estimated by the highest authorities at but little over half what they are now believed to be, and Oklahoma's reserves were understated in the light of present knowledge to the extent of 500,000,000 barrels.

Recovering Oil in Old Fields

While the Committee on Supply refuses to indulge in speculation as to the number of barrels of oil to be recovered from the one billion, one hundred million (1,100,000,000) acres within which oil may yet be found, its members have no hesitation in declaring that by recently adopted means of extraction, the now existing oil fields of the country can be made to yield "billions of barrels" of oil after flowing and pumping under present conditions have ceased. The Committee states that:

"It is the general opinion of executives, engineers and geologists throughout the country that there will still remain in the ground, after all flowing and pumping have ceased, more than twenty-six billion (26,000,000,000) barrels of additional oil. With improved methods of recovery such as mining, flooding, the restoration of pressure, and other scientific methods yet to be devised, we believe a large proportion of this oil can be recovered from the present producing fields. The production of this oil, because of the nature of its occurrence, must necessarily be spread over a long period of years."

The new methods of recovery and the results obtained, are discussed at length in the Committee's report. It will suffice to state that in the Bradford field in Pennsylvania—where recovery is now secured by flooding the oil sands with water introduced from wells sunk into them and so flushing the petroleum into adjacent wells—Mr. Forest Dorn, whose name has been given to one of the methods of water treatment, states that the amount of oil recovered from producing areas

(Continued on page 54)

Standardization Committee Reports on Derricks

Little work remains to be done before recommendations are submitted to A. P. I. Meeting

STANDARDIZATION work of the American Petroleum Institute shows further progress this week with the release of the recommendations of the special committee on the standardization of rigs and derricks and oil field boilers. With the completion of these reports little work remains for the standardization division until the recommendations are submitted for final adoption at the annual meeting of the institute in Los Angeles next January.

The special committee on the standardization of rigs and derricks in making its recommendations, emphasizes the fact that it will not be necessary for operators or manufacturers to discard their present equipment in meeting the specifications.

Following is the report of the committee:

"This committee found it necessary to recommend for adoption six different height derricks with bases and top openings to correspond, feeling we were justified in recommending the large openings for the reason that the wire line committee was able to show where a saving could be made by using large sheaves, necessitating larger openings.

"We attach hereto a sketch, with the principal derrick and rig dimensions lettered, in accordance with the following recommendations:

No.	Base A Feet	Hgt. B Feet	Opening Through Water Table C Ft.	In.	Type
1	26	122	5	6	Drilling
2	24	122	5	6	"
3	24	114	5	6	"
4	22	94	5	6	"
5	20	82	5	6	"
6	20	74	4	6	Pumping

D—Distance between the first girt and the derrick floor, 9 ft. 6 in.

E—The height of the Sampson post—16 ft. for a drilling derrick and 14 ft. for a pumping derrick.

F—Distance between center of Sampson post and center of well—12 ft. 6 in. and 11 ft. 6 in.

G—Length of walking beam—26 ft. and 24 ft., with a width of 14 in. and 12 in.

H—Diameter of bull wheels, 8 ft.

I—Diameter of bull wheel shaft: 18 in. for wood bull wheels, 16 in. for steel bull wheels.

II—Length of bull wheel shaft, shoulder to shoulder of gudgeons—13 ft. 6 in.

K—Diameter of calf wheel—7 ft. 6 in.

L—Diameter of calf wheel shaft—18 in.

LL—Length of calf wheel shaft, shoulder to shoulder gudgeon—6 ft. 3 in.

M—Face of band wheel: Owing to some experiments being conducted in wider belts of less ply than has been customarily used, your committee decided on 14, 16, and 18 inches for a band wheel face, to accommodate 12-inch, 14-inch and 16-inch belts, with a ½-inch tolerance.

N—Diameter of band wheel—11 ft.

O—Diameter of band wheel tug rim—7 ft. 6 in.

P—Distance from the floor to the center of the bull wheel shaft—4 ft. 8 in.

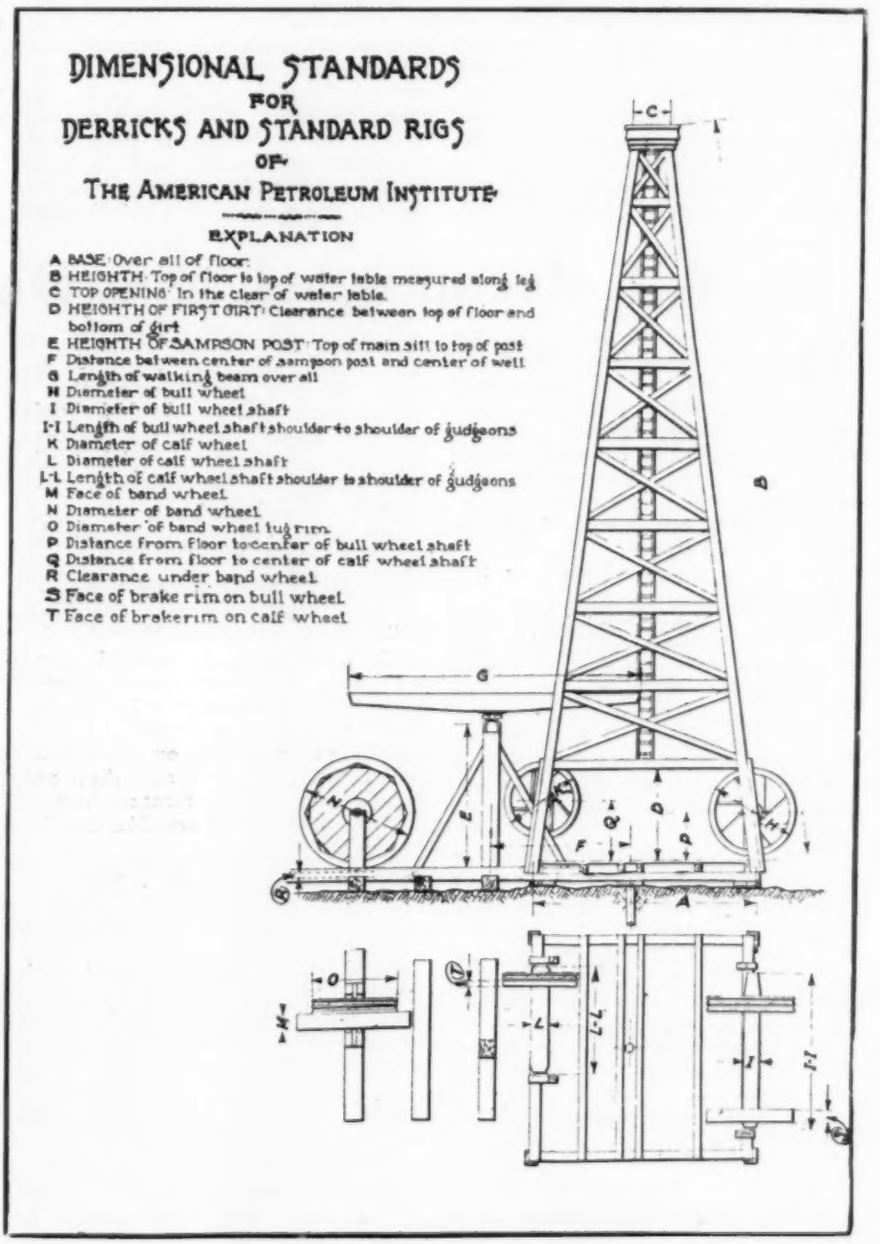
Q—Distance from the floor to the center of the calf wheel shaft—6 ft. and 6 ft. 3 in.

R—Clearance under the band wheels should be 6 in. minimum.

S—Width of face of brake rim on bull wheel—9 in. and 12 in.

T—Width of face of brake rim on calf wheel—9 in. and 12 in.

"Regarding the depth and style of


DIMENSIONAL STANDARDS
FOR
DERRICKS AND STANDARD RIGS
OF
THE AMERICAN PETROLEUM INSTITUTE
EXPLANATION
A BASE: Over all of floor.
B HEIGHTH: Top of floor to top of water table measured along leg
C TOP OPENING: In the clear of water table.
D HEIGHTH OF FIRST GIRT: Clearance between top of floor and bottom of girt
E HEIGHTH OF SAMPSON POST: Top of main sill to top of post
F Distance between center of sampson post and center of well
G Length of walking beam over all
H Diameter of bull wheel
I Diameter of bull wheel shaft
I-I Length of bull wheel shaft shoulder to shoulder of gudgeons
K Diameter of calf wheel
L Diameter of calf wheel shaft
L-L Length of calf wheel shaft shoulder to shoulder of gudgeons
M Face of band wheel
N Diameter of band wheel
O Diameter of band wheel tug rim
P Distance from floor to center of bull wheel shaft
Q Distance from floor to center of calf wheel shaft
R Clearance under band wheel
S Face of brake rim on bull wheel
T Face of brake rim on calf wheel

the groove for bull ropes in the tug rim on the bull wheels and band wheels, your committee was unable to make any definite recommendation. This matter was referred to manila cable committee, which will make definite recommendations on the question later.

Questionnaires Used

"The above conclusions were reached only after ascertaining the wishes of the operators in each of the six districts through a form of questionnaire sent out covering pertinent points, which were later tabulated and averages arrived at and results obtained mailed to each district chairman for further discussion with his committee.

"Joint meetings were held with the rig iron, belting, wire line and cordage committees, as well as other standardization committees of the institute, and the above recommendations are, I believe, in harmony with their views and recommendations where their work comes in contact with ours.

"I am sorry to report that it was impossible for most of our district chairmen to be present at this meeting, South Texas being the only district represented by the chairman in person. Reports, however, from all other districts were made in written form and mailed or presented in person by representatives of the district chairman, except the eastern division.

"If this report is finally adopted, our committee wishes to make it clear to the operators and to the manufacturers that it will not be necessary for them to discard present equipment now in use to go to these specifications. We believe that in the future, by the co-operation of all the committees, that we can gradually work up to these specifications which we now offer. We feel sure that the manufacturers will look at it in the same way. They should be given sufficient time to dispose of the materials that they have on hand. We contemplate making our final report at the next annual meeting of the A. P. I. in January, 1926, in Los Angeles. In the meantime, the various district and other sub-committees are requested to carefully review the foregoing recommendations, and hold meetings for this purpose, making such comments and suggestions as appear to them justifiable and necessary from the standpoint of his district. These reports should be directed to the national chairman. When they are received, the comments on each point will be tabulated and become the basis for the program for our committee for the January meeting, at which time, as stated above, we hope to be in position to make our final report."

The following members of the special committee on the standardization of rigs and derricks were present when the report was made:

W. W. Fondren, Humble Oil & Refining Company, Houston, chairman; A. M. Bowman, Humble Oil & Refining Company, Houston, secretary; James A. Thomas, Superior Tube Company, Tulsa; W. V. Bowles, The Texas Company, Houston; F. A. Funk, Tulsa Rig, Reel & Manufacturing Company, Tulsa; R. G. Strong, Empire Gas & Fuel Company, El Dorado, Kans.; C. D. Watson, Carter Oil Company, Tulsa; John H. Tucker, Gulf Production Company, Houston; Joe H. Russell, Gulf Production Company, Houston; G. C. Buchanan, Gulf Production Company, Houston; D. D. Wertzberger, Wertzberger Derrick Company, Tulsa; Lucien L. Powell, The International Derrick & Equipment Company, Columbus, Ohio; F. W. Mohler, The International Derrick & Equipment Company, Columbus, Ohio; R. G. Hamaker, Humble Oil & Refining Company, Houston; W. A. Trout, Emsco Steel Products Company, Los Angeles; C. R. Krause, Lee C. Moore & Company, Pittsburgh; Glenn McConnell, Roxana Petroleum Company, Tulsa.

A. P. I. Recommendations On Field Boilers

MINUTES of the meeting of the Special Committee on Standardization of Oil Field Boilers held at Dallas early in June has just been released by the Standardization Division of the American Petroleum Institute. Adoption of the A. S. M. E. Code was deferred until such time as a representative of the A. P. I. could confer with the A. S. M. E. Committee.

Minutes of the meeting are as follows:

"Method of determining horse power: This was given considerable discussion by all present and it was agreed that ten square feet of heating surface should be calculated in the manner outlined in the A. S. M. E. Code, providing that the total area of surface in actual contact with the hot gases should be the method of calculation.

"Sizes of Boilers: It was pointed out in discussion that both the oil country trade and the manufacturers would be greatly benefitted by reducing the number of sizes of boilers, and after a thorough discussion and comparison of records showing the demands on the various manufacturers present, it was unanimously agreed to recommend the adoption of the following sizes to be.

Size of Boiler	Working Pressure
50	150 lbs.
65	175 lbs.
85	175 lbs.

"It was unanimously agreed that it would be advisable to standardize all smoke stacks and bonnets, and that the smoke stacks on all the boilers should be interchangeable and should be made out of 12 gauge iron and not less than 28 feet in length, and should be made in two sections of equal length.

"It was unanimously agreed to recommend standard size of man hole for all boilers; and 11 inch x 15 inch was recommended as the proper size.

"It was unanimously agreed to standardize on handholds, making the size of the handhold in the smoke box end 3½ inches x 4½ inches, and all other hand holds 3 inches x 4 inches, and should be located as follows: Four in outside wrapper sheet on a line with crown sheet; two in throat sheet and two in front outside furnace sheet as close to mud rim as possible; one below tubes in rear tube sheet; one in front outside furnace sheet on a line with crown sheet.

"It was unanimously agreed to adopt a 3-inch steam opening on all sizes of boilers as above listed, with the exception of tubular boilers larger than 100 horsepower, which should have a 4-inch opening. All openings to be standard thread connection.

"It was unanimously agreed to recommend standardizing on the feed water connections, the boiler gauge, gauge cock connections and blow off connections as follows:

"Two feed water connections to be located on opposite sides of barrel of the boiler, each one and one-half-inch bushed to one and one-fourth-inch for the above mentioned boilers, and all tubular boilers under 100 horsepower and over 75 horsepower should have two-inch openings; and all above 100 horsepower should have two and one-half-inch standard thread openings.

"One blow off connection to be located in the bottom of the throat sheet under barrel two inches in size and bushed to one and one-half inches with a brass bushing. All tubular boilers larger than 100 horsepower should have two and one-half-inch openings of standard thread connection.

"One-half-inch water gauge connection with five-eighth-inch standard fittings for five-eighth-inch gauge glass. All tubular boilers over 100 h. p. to have three-fourths-inch gauge connections.

"One-half inch gauge cock connection.

"As the majority of the committee favored the location of the dome over the fire box, they suggested that it be placed there; and that on boilers where the shell is 48 inches in diameter or larger they would prefer the diameter of the dome to be approximately 36 inches or larger.

'It was unanimously agreed that it would be advisable to adopt a standard list of fittings to be shipped with each boiler as follows:

(Continued on page 57.)

Hammond Interests Drilling Wildcats In Remote Mexican Interior

THE wildest wildcat wells being drilled in the Republic of Mexico and the farthest from any center of supplies or city, are two wells of the Mexican Seaboard Oil Company; one being drilled at Zona Sola and the other at Salto de Agua, both in the interior of the State of Chiapas.

The operations are being carried on under the name of the Cia. Mexicana de Petroleo y Terrenos, S. A., the operating subsidiary for the John Hays Hammond interests, south of the Isthmus of Tehuantepec.

Zona Sola No. 1 is being drilled near to the former ruins of Palenque, considered by archeologists as being 1400 years old, with the Zona Sola property line coming within 500 varas of a group of the main temples of the ruins. This well, now drilling at 2665 feet, will be carried if necessary to 4000 feet. It is located 236 kilometers west of Frontera up the riigers Grijalva and Usumacinta to Montecristo, and then 60 kilometers north into the interior over a road constructed by the company partly through flats where it was necessary to elevate for many miles because the entire country is covered with water in the rainy season and partly through mountains where roads had to be built by blasting along the sides of hills as well as bridging over numerous gorges.

Within a few miles of Montecristo the company in 1924 completed its first well, Cruzada No. 1, on which drilling was suspended at 3131 feet. The last 75 feet was through 24 gravity dead oil with no gas pressure.

Salto de Agua No. 1-a, is 230 kilometers up the Rios Grijalva, Chilapa and Tulija and then seven kilometers by road to the well. This operation is being carried on by diamond drill and is down to 2574 feet. A derrick has been constructed for well No. 2 and the company has planned continuous operations for a number of years.

Showing class of roads built by the Mexican Seaboard Oil Company to get to well locations in the interior of the State of Chiapas, Mexico.

Salto de Agua No. 1-a Diamond Drill operation of the Mexican Seaboard Oil Company in the State of Chiapas, Mexico.

Bachahon Indians used by the Mexican Seaboard Oil Company as laborers on their operations in the State of Chiapas, Mexico.

At Frontera where the main offices of the Cia. Mexicano de Petroleo y Terrenos, S. A., are located, all preliminary engineering work has been completed and plans and specifications drawn for a sea-loading terminal in case production is obtained either at Zona Sola or Salto de Agua and it is estimated that the terminal, because of its extremely favorable location could be in operation in three months after the arrival of material. Survey has been completed for a 50 kilometer pipeline from Zona Sola to the Usumacinta river and 22 kilometers from Salto de Agua to Rio Tulija, with the oil to be barged to Frontera from the respective river loading racks.

Garber Production 6150 Bbls.; Two Oswego Wells Completed

Tulsa, Okla.—Marland and Mid-Continent Petroleum Corporation school land well 26, Garber field, came in Tuesday morning flowing 750 barrels an hour from Oswego lime, topped at 4195 feet. The flow averaged 560 barrels an hour first six hours, falling off slowly. This well is two locations north of Sinclair's Belveal 25, first Wilcox sand well at Garber.

The Marland-Mid-Continent well will likely drop off in a few days so hole can be carried down. Roxana Petroleum Corporation's Schroeder 2-W, northwest, southwest, southwest 18-22-3 west, found Oswego lime at 4180 feet going as high as 510 barrels an hour. Now falling off and will be deepened to Wilcox.

Production from Oswego lime is considered only temporary for the Garber field. Some of the wells should make enough oil from Oswego lime to pay for the drilling, leaving the test to Wilcox to be made at little expense.

PERSONAL MENTION-MEN YOU KNOW

W. N. Finnegan, Jr., chief statistician of the Humble Oil and Refining Company, Houston, is spending a vacation of two weeks visiting several points in the gulf coast region with his family.

Fred W. Dallas, field superintendent for the Rycade Oil Corporation, headquarters at Houston, returned to his office last week after making a trip to Orange and other points on the coast in the interest of company business.

W. C. Thomas, production superinendent of the Vacuum Oil Company, offices in Houston, made a trip last week to Lake Charles and other Louisiana points where the Vacuum is carrying on an extensive drilling campaign.

J. S. Abercrombie, well known drilling contractor with offices in Houston, returned last week from Columbia, South America, where he went in May on a business trip. Mr. Abercrombie spent some time in Cartogena near the site of the Sinu and Tubara fields. He is drilling eight wells in these fields. Following his return to Texas he left for southern Louisiana, where he also has several drilling contracts. He will leave for London within the next two weeks. On his trip to South America Mr. Abercrombie was accompanied by A. F. Fincher, head of the accounting department for the Abercrombie company. Mr. Fincher returned to Houston late in July.

C. E. Girten, president of the Girten Belting and Supply Company, Houston, underwent a minor operation last week, but is expected back on the job within the next few days.

A. E. Raines, sales manager for Wilson Oil Tools Corporation, left Los Angeles recently for a trip of two months over the country, in which he will visit the principal oil fields and consult with representatives and customers of the Wilson Corporation. His first stop will be in the Wyoming fields, after which he will go to Oklahoma, thence to Pittsburgh and New York. On his return Mr. Raines will stop for the International Petroleum Exposition to be held in Tulsa early in October. He is expected to return to Los Angeles about the middle of October.

H. D. MacKinzie, with the Tidal Oil Company, Fort Worth, was on a business trip to the home office of the company in Tulsa last week.

E. M. Jones, formerly production foreman for the Louisiana Oil Refining Corporation in the Haynesville field, has been promoted to the position of assistant superintendent of production, in charge of the company's operations in the Arkansas fields. He will make his home at Camden, but his offices will be at Louann. Charles Smith, Jr., formerly a gang pusher at Haynesville, has been promoted to succeed Mr. Jones as production foreman at Haynesville.

B. E. Lindstrom, a member of the Barber-Greene Company, Aurora, Illinois, for the past seven years, is now in charge of the Chicago office of this company, succeeding the late George R. Bascom, who died June 26. Harold R. Haase, a member of the Chicago organization since 1920, is now associated with Mr. Lindstrom.

A. W. (Art) Thompson, general manager of the International Supply Company, has returned to Tulsa after an extensive trip through the field in Wyoming and other states in the Rocky Mountain region. His return to Tulsa was made by way of St. Louis.

E. A. Shaw of the Peerless Supply Company of Tulsa is the proud father of Robert James Shaw, who was born August 7. J. C. Bennett, formerly with the Prairie Oil and Gas Company, is an uncle of young Robert James.

A. S. Henley, chief geologist for the Houston Oil Company, Houston, is on a business trip to gas fields of Jackson and Refugio Counties in the Gulf Coast, where his company is operating several tests for gas wells.

Purchasers Will Discuss Handling of Used Material

Tulsa, Okla.—"What Should Be Our Policy of Warehousing Materials for Field Operations, Including Second-hand Materials from Operating Properties" will be the subject for discussion by the Oil Company Buyers' Group of the National Association of Purchasing Agents at a special called session of this body to be held in Tulsa, October 6, according to an announcement of George C. Pohler, chairman of the group. All buyers for the oil industry are being asked to attend this meeting, the announcement stated.

The primary purpose of the conference, the chairman explains, is to formulate a policy by which oil companies will possibly be able to reduce the costs of distribution on oil industry equipment, which, as it is shown, has been steadily rising for several years. As this cost is of vital importance to the manufacturer and consumer as well as to the purchaser of this equipment, efforts will be made by the group to get a good representation at the meeting.

George C. Pohler, who has been recently made chairman of the executive committee of the group, called the special session of the Oil Company Buyers' Group in order to avoid a conflict between the special subject to be discussed and the regular business of the annual meeting of the organization.

Wind Jammer Becomes Oil Barge

Los Angeles, Calif.—The Erskine M. Phelps, Union Oil Company tanker which for years has enjoyed the reputation of one of the best known wind jammers on the coast, has been reconditioned as a barge and will be engaged in hauling oil from Port San Luis to Oleum.

Pay Mexican Taxes

Tampico, Tamps.—The chief stamp tax collector of Tampico has advised that virtually all of the oil companies' local offices have paid the national income tax for the first six months of 1925. The Transcontinental Petroleum Company (Standard Oil of New Jersey), paid the largest single tax so far this year, $1,887,000, pesos.

New Luling Wells Started

Luling, Texas.—M. O. Rayor has a rig in place over the Inscore well and will start drilling as soon as he completes a water well nearby. His rig is of an exceptionally heavy type and should be completed in a few days. He expects to strike the pay at 1000 feet. Other operations are planned in that district by this operator, including the working over of the old Walker well.

The United North and South Oil Company has drilled its O. F. Stair No. 1 to the pay and has set casing. This well is to be drilled in during the next few days. The company has made locations on the Stair, McKinney and Tiller leases and will commence drilling within a short time.

The Magnolia Petroleum Company has made a location on the D. M. Day lease in Guadalupe County and will test the belief of operators that an additional fault line runs from the main Luling field into Guadalupe County. The company has blocked a large tract around this test.

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Determining Absorption and Permeability of Oil and Gas Sand

By A. F. Melcher
Washington, D. C.
Published by Permission of the Director of the U. S. Geological Survey

By means of specially designed apparatus which is described, oil and gas sand samples may be subjected to accurately measurable pressures, under which reliable quantitative determinations of absorption and permeability of the sands for certain fluids such as oil, fresh and salt water, and gases can be made. Application of absorption and permeability investigations on typical oil and gas sands to method of recovery is important. Abstract from the Bulletin of the American Association of Petroleum Geologists, May-June, 1925, p. 442.

THE pressure apparatus described in this paper was built to determine the degree and rates of absorption of oil sands of different textures for water and oils of different viscosities under varying pressures and temperatures. Experiments are to be made on accumulation and migration of oil under pressure. The pressure apparatus is to be used for experiments on recovery of oil sands of various textures, or the amount of oil that a sand saturated with oil and gas will yield when the pressure is released to the atmosphere. It is hoped that

Figure 1—Pressure apparatus with cap removed

these experiments will not only give a better understanding of the forces that operate in accumulation and migration of oil, but will be of use in determining the percentage of saturation, estimates of recovery, and the adaptability of oil sands for such methods of recovery as water flooding, compressed air, and vacuum.

The pressure apparatus is shown as a whole in Figure 1, a diagram of the pressure chamber in Figure 2, and the pressure piston and cylinder in Figure 3.

A twofold purpose was kept in mind in the design of the pressure chamber: the pressure chamber must not only be large and easily accessible, but must be made to withstand a hydraulic pressure of 3000 pounds to the square inch with practically no leakage. To satisfy these requirements, the pressure chamber consisted of four main parts, an outer cap C, inner cap E, pressure screw D, and handle A, and the main body of the pressure chamber G. All the parts were made of brass except the pressure screw, which was made of steel. To close the pressure chamber, the inner cap is screwed up by the screw D into the outer cap as far as it will go. The outer cap is screwed down over the pressure chamber, then the inner cap is forced down on the top of the pressure chamber by the pressure screw D. When the flange of the inner cap rests on the leather gasket F, the pressure screw turns in the socket at the top of the cap E without turning the cap itself. This method of forcing the inner cap down on top of the pressure chamber without turning the inner cap prevents injury to the gasket which is placed in the depression at the top of the pressure chamber. For lower pressures, sufficient force can be applied to the pressure screw by the handle A, but for higher pressures (from 1,000 to 3,000 pounds to the square inch), the six bolts which extend through the outer cap C are tightened.

Pressure is applied to the confined liquid in the pressure chamber by the screw D and piston E in Figure 3. A tight-fitting piston is formed by a leather cup-shaped gasket F fastened on the end of the piston. This cup-shaped gasket is in common use at the United States Bureau of Standards.

The pressure pumps are made in duplicate; one is used for oil and the other for fresh or salt water. The duplication of the pressure pumps saves labor of cleaning the pump when the liquid is changed. A needle valve[1] is

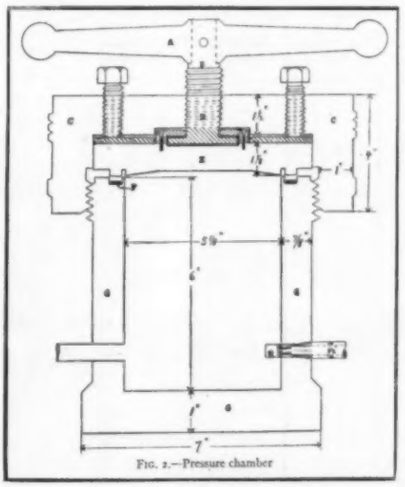

FIG. 2.—Pressure chamber

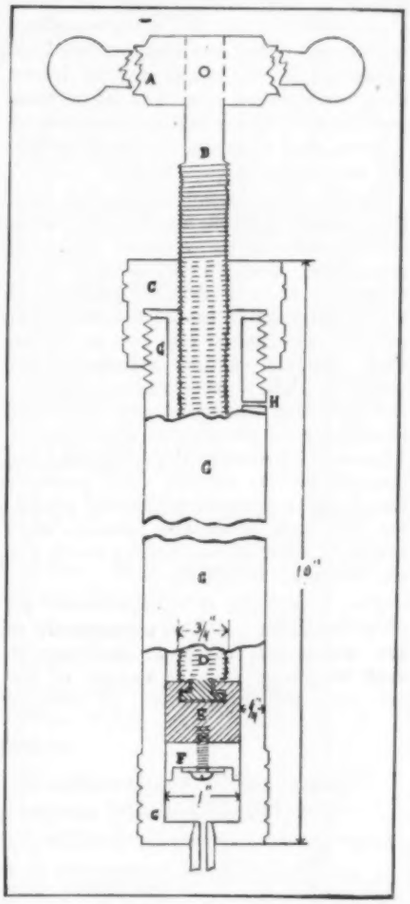

Figure 3—Pressure piston and cylinder

pressure pump, and is used to close the opening from the pressure pump and hold the liquid under pressure in the pressure chamber. The pressures are read by hydraulic pressure gauges calibrated by the United States Bureau of Standards.

Comparison of Water Absorption With Pore Space

Comparisons were made of the percentage of water absorption at various pressures with the percentage of pore space by volume of three building stones. The samples were cubes and consisted of a red sandstone (1), a

[1]This type of needle valve is described by J. W. Cook "The Production of Liquid Air on a Laboratory Scale," U. S. Bureau of Standards Scientific Paper No. 419, pp. 285-86, 1921.

inserted in the tube leading from the

brown sandstone (2), and an Indiana limestone (3), furnished by Mr. D. W. Kessler, of the United States Bureau of Standards.

The samples were first dried in an electric oven at 110° C for 52 hours and weighed after they were cooled in desiccators. The samples were again placed in the electric oven and dried at 142° C. for 22 hours and weighed after they had cooled in the desiccators. The greatest change in weight for the two dryings at the above temperatures was a decrease in weight of 0.3 grams for the red sandstone sample. The samples were then placed in shallow trays containing about ½ inch of distilled water. Distilled water was added at intervals of two or three hours until the samples were completely covered. After the samples had been immersed in the water for 93 hours, they were taken out, one at a time, their surface water being removed with a towel, and weighed. A check weighing was made on each sample.

The red and brown sandstones were then placed immediately into the pressure chamber of the pressure apparatus containing distilled water and were subjected to a hydraulic pressure of about 250 pounds for 20 minutes. The samples were taken out, one at a time, their surface water removed, and weighed. They were again placed in the pressure chamber and subjected to a hydraulic pressure of 1,000 pounds. The next morning the pressure had dropped to 300 pounds. The pressure was then maintained at 300-600 pounds for six days, when the samples were removed, their surfaces were dried, and the samples weighed.

The results of this experiment are given in Table I. The temperature of the water was taken at the time of each weighing, and the volume of water was computed from its density. The difference in the first two determinations of percentage pore space by volume and the third determination of sample No. 2 is due to two different texture types of this sample. The difference between the percentage of water absorbed by volume at 1,000 pounds pressure and the average percentage of pore space by volume of samples Nos. 1 and 2 are well within the limits of experimental errors. The close agreement of the average percentage of pore space by volume with the percentage of water absorbed under 1,000 pounds pressure of samples Nos. 1 and 2 not only gives a check on the methods, but indicates that the pores of granular oil and gas producing sands are completely filled with some flowing substance or substances as oil, gas, and water, especially when these sands are under 1,000 pounds pressure. This experiment tends to confirm the axiomatic statement by Carl H. Beal and J. O. Lewis[2] that no vacuum exists in an oil sand, but each void is filled with water, gas, or oil.

TABLE I

COMPARISON OF ABSORPTION OF BUILDING-STONES FOR WATER AT VARIOUS PRESSURES WITH THE TOTAL PERCENTAGE OF PORE SPACE

Sample No.	Dry Weight (Gms.)	Water Absorbed at Atmospheric Pressure		Water Absorbed under 250 lbs. Pressure for 20 Min.		Water Absorbed at 1000 lbs. Pressure		Total Pore Space, Percentage by Volume
		Weight (gms.)	Percentage by Volume	Weight (gms.)	Percentage by Volume	Weight (gms.)	Percentage by Volume	
1	450.25	26.29	12.9	28.69	14.0	36.55	17.9	17.3 17.9 18.5 Av. 17.9
2	518.02	16.29	7.5	18.47	8.5	25.68	11.9	10.7 10.6 13.4 Av. 11.6
3	441.49	29.20	14.6	.....	.....	.....	.....	19.4 18.8 18.9 Av. 19.0

TABLE II

PERCENTAGE PROPORTION OF WATER ABSORPTION TO TOTAL PORE SPACE*

No. of Sample	By Method of Quick Immersion	By Method of Gradual Immersion	By Method of Gradual Immersion in Boiling Water under a Vacuum (2 cm. or Less Pressure of Mercury)	By Method of pressure 50–150 Atmospheres
1	53.0	61.3	85.5	100.0
17	45.9	52.2	61.1	100.0
11	71.3	81.2	81.5	100.0
2	60.9	63.0	99.4	100.0
4	72.6	77.2	81.0	100.0
18	53.3	54.6	99.5	100.0
16	47.6	49.7	96.1	100.0

* The total pore space in these seven cases is the same as the pore space determined by the method of, applying a pressure of 50–150 atmospheres to the sample under water immediately after the method of gradual immersion in water under a vacuum has been completed.

Absorption Tests on Building Stones

The results of the above experiments on pore space and absorption of water by rocks under pressure confirm the results of the determinations of pore space by Julius Hirschwald,[3] who shows that pore space determinations based on water absorption very seldom give the correct value for building stones unless the samples are placed in water under pressure. In this case a pressure of 50 atmospheres or more was used to saturate the samples.

Mounting for the Determination of Permeability of Oil Sands

Figure 4 shows the mounting made of brass, cross-section of the mounting, and outer and inner sleeve of the mounting. On the cross-section of the mounting, 1 indicates the oil sand specimen which rests on the sharp-edged top of the inner sleeve 5 and against the outer sleeve 3. The top of the outer sleeve is beveled so that samples of various sizes can be used, and a large specimen can be reduced in size so that the distance between the outer sleeve and the top of the inner sleeve can be decreased by reducing the size of the oil sand specimen.

The sloping sides of the outer sleeve at 2 also permit space between the sample and the sleeve to be filled in by a cement such as De Khotinsky or sodium silicate. If a very friable sample is used, a wire gauze, which has been calibrated for permeability, is placed on top of the inner sleeve to keep the sample from breaking down when pressure is applied. A series of shoulders on the sloping sides of the outer sleeve will assist in holding indurated samples of different sizes where high pressures are used.

The mounting is designed to furnish an area and thickness of the oil sand

[2] "Some Principles Governing the Production of Oil Wells." U. S. Bureau of Mines Bulletin 194, p. 9, 1921.

[3] Die Pruefung der natuerlichen Bausteine auf ihre Wetterbestaendigdeit. Berlin, W. Ernst und Sohn, 1908.

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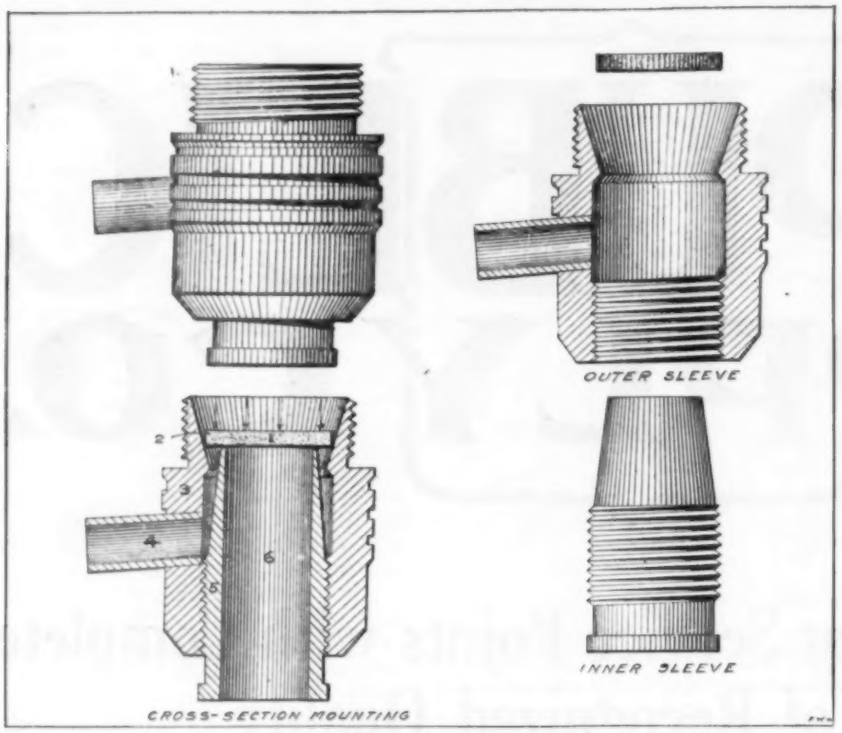

Figure 4—Mounting for determination of permeability of oil sands

which can be measured accurately. The inner face of that part of the oil sand specimen that is actually used for determination of permeability is equal in area to the opening in the inner sleeve 6. The design of the apparatus eliminates any error due to leakage along the sides of the specimen, as any liquid which leaks by the sides passes out through the exit 4. Any diagonal flows, eddy currents, or error due to cement can be studied, corrected for, or eliminated by changing the area of that part of the specimen between the inner and outer sleeves, or by using inner sleeves of different internal diameters and making a new determination on the same specimen.

Mounting Sample for Permeability

In operation, the oil or gas sand specimen, which is prepared in the form of a disk, is placed in the beveled opening at the top of the outer sleeve. The inner sleeve is then screwed up into the outer sleeve until its top edge comes into contact with the specimen. The space between the sample and the outer sleeve at 2 is filled with cement, and the mounting containing the specimen is then screwed into the outlet of the pressure apparatus, which is inclosed in a thermostat. The liquid or gas pressure is applied in the direction of the arrows shown in the cross-section of the mounting.

The quantity of liquid which flows through the sample into the inner sleeve for any given time, pressure, and temperature can be measured accurately either by removing the inner sleeve with its liquid and weighing it, or by letting the liquid flow into an inclosed receptacle underneath the inner sleeve and weighing. The quantity of gas which flows through the specimen for any given time, pressure, and temperature can be measured by a gas meter when gas is being used for determinations of permeability. The gas in the openings 4 and 6, which are shown in the cross-section of the mounting, should be kept at about the same pressures, so that the error due to transfer of gas from one opening to the other will be negligible.

The apparatus for determining the permeability of oil and gas sands for liquids and gas is shown in Figure 5 without the mounting.

This design of mounting oil sand samples gives an accurate and convenient method for studying permeability of oil sands. The mounting will be used to study the various physical properties of oil sands and methods of recovery of oil, as has been outlined by the writer.[4]

The writer is indebted to Lyman J. Briggs, of the United States Bureau of Standards, for suggestions on the design of this mounting. R. L. Atkinson, the Geological Survey mechanician, built the apparatus and gave helpful suggestions on their design.

[4]"Investigations on Permeability and Absorption of 'Sands' for Oil, Water and Gas, with Reference to their Normal and Possible Yield," Bull. Amer. Assoc. Pet. Geol., Vol. 6 (1922) p. 148.

Standard Rail Opens in Tulsa

Tulsa, Okla.—The Standard Rail and Steel Company of St. Louis has opened a branch office in Tulsa located at 304 Central National Bank building. The Tulsa office will be in charge of S. A. Wolff and A. S. Rips.

A complete stock of line pipe, casing and oil well supplies will be carried in the Tulsa warehouse located at the intersection of Lewis and the Frisco railroad tracks.

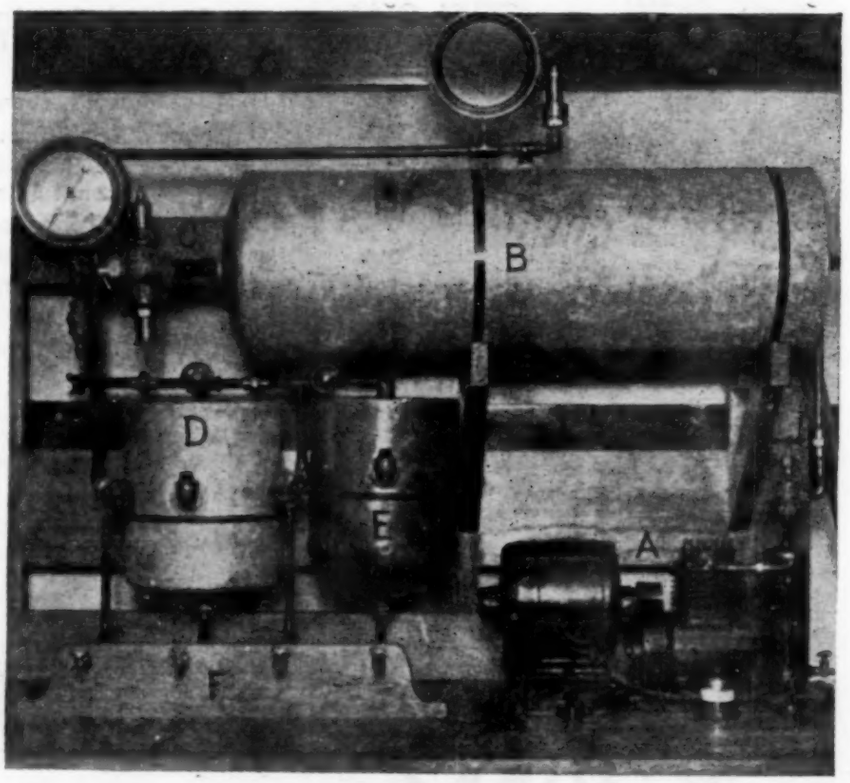

Figure 5—Apparatus without mounting for the determination of permeability: A, air pressure pump; B, large reserve pressure tank and gauge; C, constant pressure-reducing valve and gauge; D, oil pressure tank; E, salt-water or fresh water pressure tank; F, outlets for attaching mounting containing sample for test.

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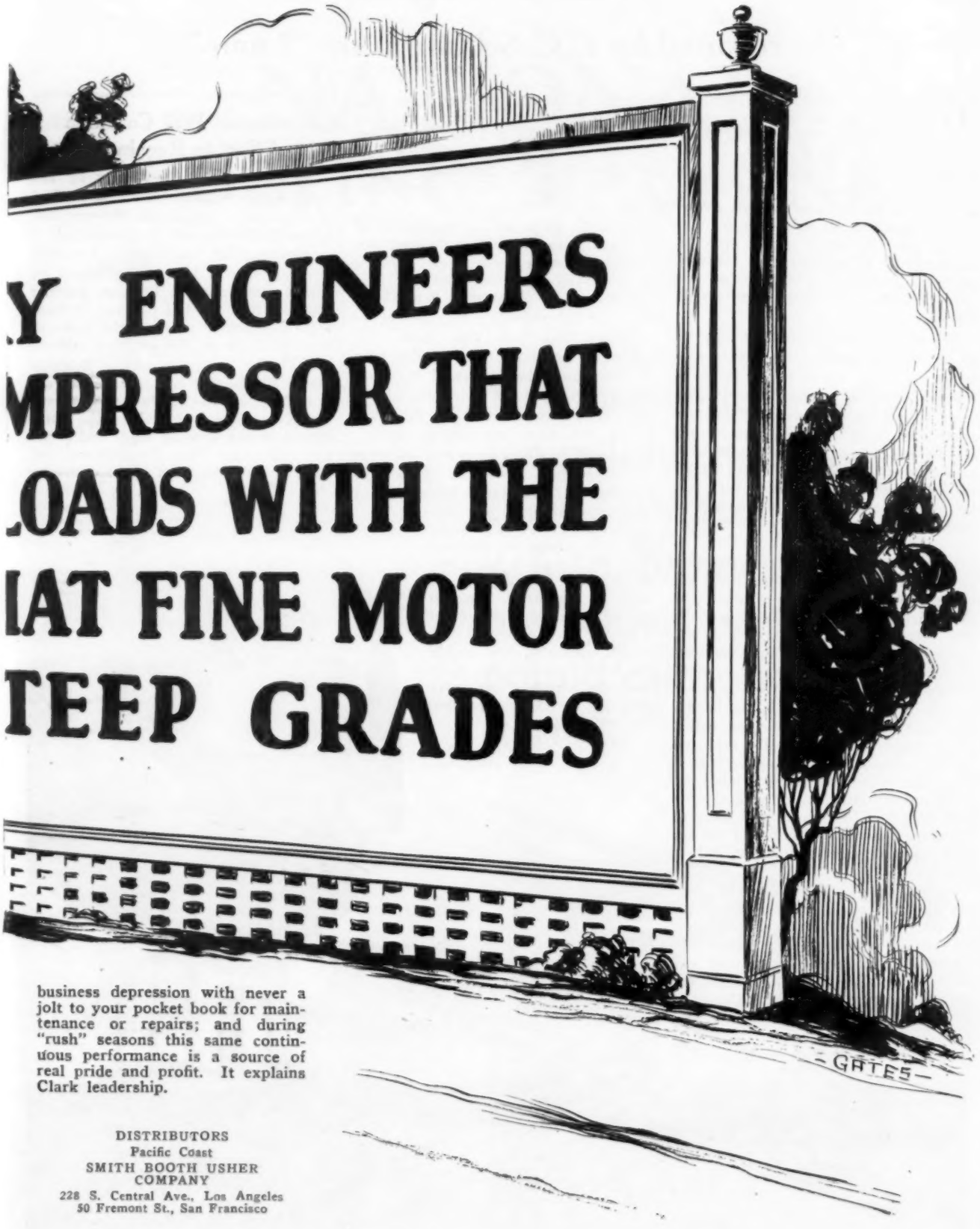

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How Obstinate Fire in Argentine Field Was Fought

As reported by F. C. Schultz in the "Lamp"

THERE are two very common trials in the life of every experienced driller. The first of these is the fishing job for lost tools or disconnected casing. When a drilling bit is broken off a matter of 2000 feet or more below the surface and lies crosswise in the hole, a long and tedious job is generally ahead of the crew at the derrick. Before they are through hammering on the bit to end it up the chances are that the hole is pretty well ruined.

The well on fire, the other emergency, is less frequently met with, but seems to occur in its worst form in remote districts where the drilling force is entirely dependent on its own efforts for relief. Both the fishing job and the fire fighting call for the highest kind of initiative, since each case brings its own peculiar problems with no text book to guide the workers and no specialist to take the responsibility off their hands.

The accompanying pictures describe almost as graphically as the brief account from F. C. Schultz an obstinate fire which occurred at Plaza Huincul in the Argentine last February. Mr. Schultz's own account of the ingenious method he and his associates used to conquer this fire is as follows:

"We made up seven joints of 21-inch pipe with a bend at one end, belled out. When we had this pipe made up we put a line on it and dragged it over the cellar around the well, holding the bend up until it lined up with the 10-inch pipe." (The reader will have to imagine the roaring fire and terrific heat in the vicinity of this 10-inch pipe.)

"After our big pipe was in position we turned it over with a rolling hitch so that the bell or hood went over the 10-inch pipe in the ground. It then carried the gas out through the end of the 21-inch pipe. Of course, the fire carried through the pipe at the same time, so that the gas was burning at a distance of about 130 feet from the hole, as shown in the accompanying picture. This gave us a chance to clean out the cellar, to move the rig and other material that had been on fire and cool off the ground around the well.

"In order to avoid the possibility of having the gas break out beyond the 10-inch pipe once the well was shut in, we cemented the cellar from the 15½-inch clamps to about three feet above the 12½-inch collar.

"When this had been done, we jacked up the joint of 21-inch line near the bend until the bottom of the hood was flush with the 10-inch collar blocking the 21-inch pipe and put skids under it. We then connected up two rotary hoses to steam lines and led them up in the hood. This reached about 15 feet in the 21-inch pipe when we put the steam through the line. The idea of this was to clean the 21-inch pipe of gas and hold the fire back while the hood was turned off. As soon as the steam was put through the big pipe we put a rolling hitch on it and took a pull with a tractor, giving the hood two complete turns and the fire was out. We then put a valve on and shut the well in."

Gas led off to a safe distance

Boilers set up at gas fire

Government Will Continue Effort to Regain Reserve

Washington, D. C.—Efforts by the Federal Government to regain control of all lands in Naval Oil Reserve No. 1, in California, will be continued, it is indicated in Washington, Attorney General Sargent having authorized an appeal from a court decision holding that the Belridge Oil Company's lease was valid and dismissing the Government's bill to set the contract aside.

With the exception of the Belridge lease, all the oil land in the reserve is under lease to the Doheny interests. The Government is seeking the abrogation of the Doheny lease and it appears that the Navy Department contemplates repossession of the entire re-

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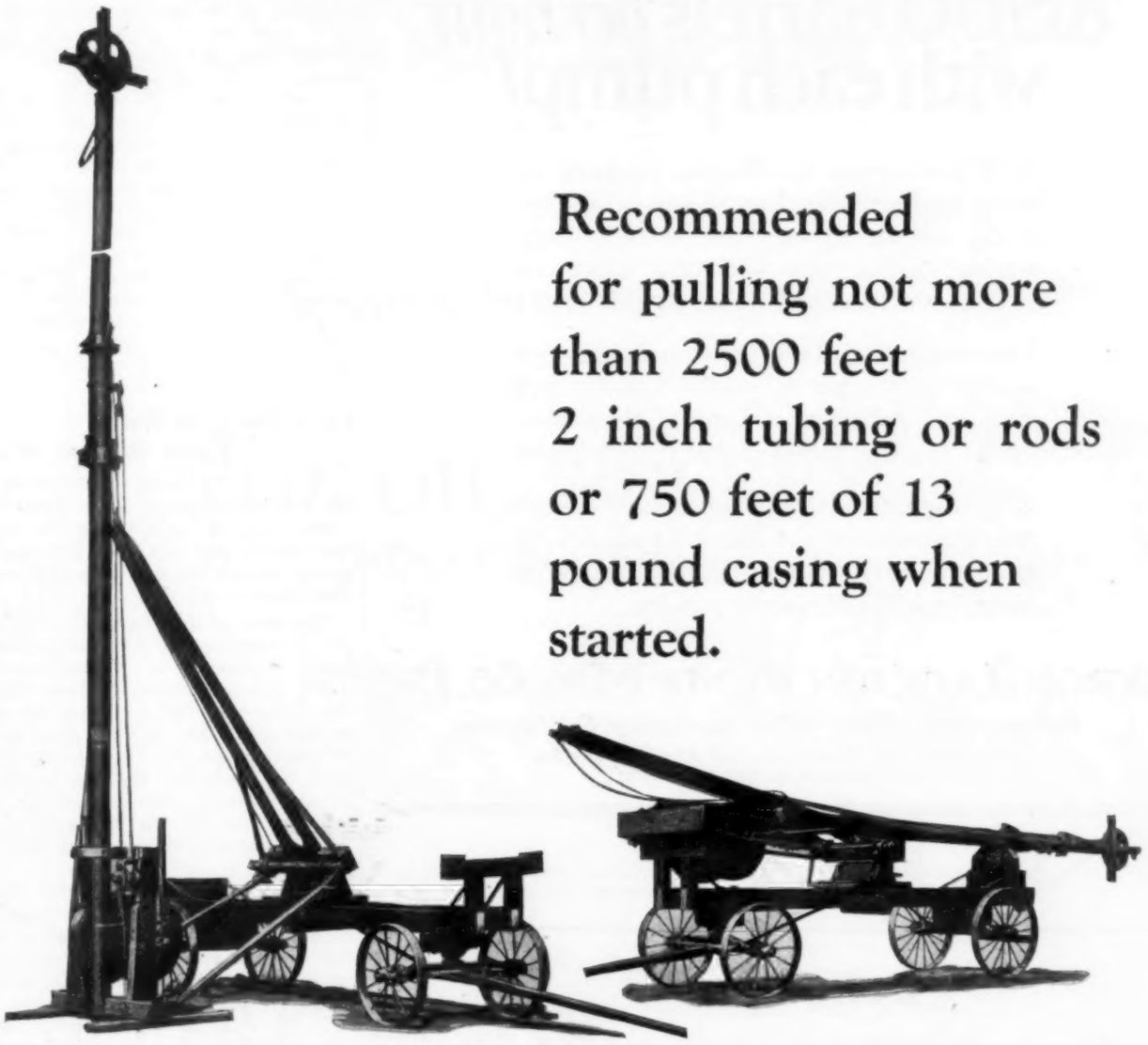

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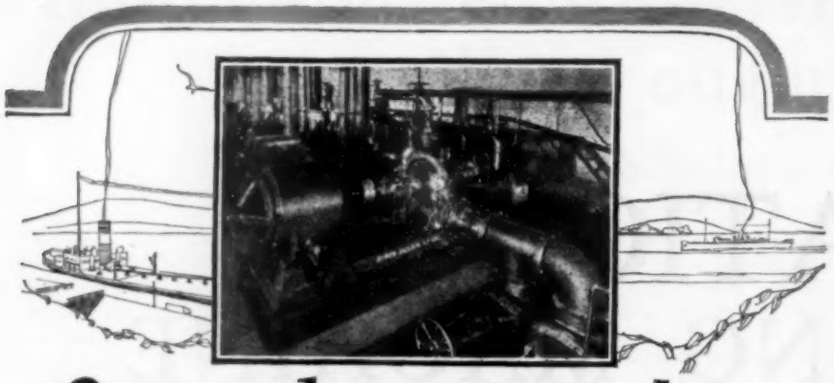

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THE TYLER TUBE & PIPE COMPANY

WASHINGTON, PA.

Texas Stock—Harrisburg Pipe & Pipe Bending Co. of Texas, Houston, Texas

serve, irrespective of the present lease holders.

The Belridge case involves a suit by the United States to cancel a lease made August 24, 1922, on the ground that the Secretary of the Interior, who made the lease, was without authority to do so. It is contended that the fact that the Secretary of the Interior alone signed the lease, without the accompanying signature of the Secretary of the Navy, was unauthorized by law. An additional ground for the suit was the failure to invite proposals and afford an opportunity for competitive bidding.

The question of the authority of the Secretary of the Interior to make leases of naval reserve oil lands alone has already been the subject of court decisions which have conflicted.

The question of the validity of the Belridge lease, it is stated, affects other leases covering several thousands of acres of oil land in Naval Reserve No. 2. In the event that the higher court should declare the Belridge lease invalid, leases similarly made to lands in Naval Reserve No. 2 would also be open to challenge, although the extent to which the Government is obtaining royalties from such leases might be a determining factor in the situation there.

Little Doing in North Texas Wildcat Work

Fort Worth, Texas.—Wildcatters in the North and Central West Texas districts reported little during the week that brings any one spot into prominence, though there were several wells that deserve mention.

Foremost of these is G. C. Thedford No. 1, completed by the Phillips Petroleum Company, in Young County, about five miles from Graham. Sand was topped at 3650 feet, and the well flowed about 200 barrels after being drilled two feet in. Upon being deepened two more feet the flow increased to approximately 400 barrels, but this has not held up. At this writing the well is making 125 barrels of oil from 3654 feet.

This well is located in what might be called wildcat territory, although it is in a section where production is near. The nearest producer, however, is five or six miles away. The well is located 330 feet from the north line and 330 feet from the west line of the south 40 acres of the G. C. Thedford land in the S. Barrett survey. Phillips has practically all the immediate acreage blocked.

In the North Texas section, interest centered around the Big Indian Oil & Development Company's F. Lester 1. It was reported earlier in the week that a test was to be made on this well and considerable enthusiasm had been aroused by reported shows of oil. However, after eight and one-fourth inch casing was set and cemented and the plug drilled out, the hole filled up

OKLAHOMA QUARTERLY PRODUCTION REPORT

Covering Second Quarter of 1925

Special Supplement

—to—

THE OIL WEEKLY

HOUSTON, TEXAS

Issue of August 21, 1925

VALUABLE INFORMATION

The accompanying list gives the name of company, address and gross production for all companies making returns to the State of Oklahoma for the second quarter of 1925. This is one of the most valuable lists of its kind obtainable and is a regular service to both readers and advertisers of The OIL WEEKLY.

Oklahoma Light Oil Drop Reflected In Quarterly Report

Leading Companies in Oklahoma*

Company—	Second Quarter 1925	First Quarter 1925	Fourth Quarter 1924	Third Quarter 1924	Second Quarter 1924
Comar Oil Company	3,285,489	3,832,689	5,018,820	1,717,314	2,007,654
Gypsy Oil Company	2,677,565	3,258,524	2,884,592	3,347,579	2,986,789
Carter Oil Company	2,188,536	1,775,094	2,170,056	1,927,532	1,879,769
Phillips Pet. Company	2,173,098	2,163,942	2,558,694	1,715,795	2,974,475
Sinclair Oil & Gas Company	1,913,130	1,290,666	1,329,603	1,419,193	1,468,563
Prairie Oil & Gas Company	1,811,622	1,684,207	1,785,623	1,713,621	1,601,535
Magnolia Petroleum Company	1,754,175	1,570,335	1,658,326	1,706,880	1,645,714
Skelly Oil Company	1,125,300	1,167,915	1,084,025	1,993,480	1,905,614
The Texas Company	1,009,325	.....	.....	.....	.....

State total second quarter, 1925	41,750,044
State total first quarter, 1925	42,745,316
State total fourth quarter, 1924	46,845,989
State total third quarter, 1924	39,728,370
State total second quarter, 1924	39,353,097

*Only those companies producing more than a million barrels listed.

FURTHER losses in production of light oil from the flush fields of Oklahoma are reflected in the second quarterly production report of the state which has just been issued from the State Auditor's office. A decrease of 995,272 barrels is shown for this quarter as compared with the first quarterly report of 1925, the total production of the second quarter being 41,750,044 barrels against 42,745,316 barrels produced during the first quarter of this year.

The decrease in production during the second quarter is due to the practically equal losses of nearly all of the largest companies in the state. While several of the larger companies dropped from the ranks held for the first quarter and other companies rose to a place among the nine leading companies which passed the million barrels mark in production for the three months, a decided shifting is not especially noticeable.

Among the nine companies producing more than a million barrels during the second quarter of this year the Comar Oil Company retained its position held the first quarter as the largest producing company in the state with a total output of 3,285,489 barrels.

The Gypsy Oil Company continued to hold second place in the production rank that it attained during the first quarter of this year. The Carter Oil Company, which was fourth in production during the first quarter, rose to third place for the second quarter, taking the place of the Phillips Petroleum Company, which was reduced to fourth place. Another change in production is shown by the Sinclair Oil & Gas Company, which during the past quarter passed the Prairie Oil & Gas Company, taking sixth place and putting the latter in the seventh rank in production for companies in the state.

For the second quarter the Magnolia Petroleum Company was seventh in production, the Skelley Oil Company eighth and The Texas Company ninth, the last of the companies producing more than a million barrels during the quarter.

The Cosden Oil & Gas Company, the Wentz Oil Corporation, the Amerada Petroleum Company and T. B. Slick, all of which produced more than a million barrels in the first quarter of this year dropped below that mark during the second quarter. The Texas Company, which was not among the companies the first quarter of the year producing more than a million barrels, is the only company added to the million barrel producers this quarter.

Companies Reporting on Gross Production for the Quarter Ending June 30, 1925

Company and Location—	Barrels
Aaronson, C. T., Tulsa	2,078
Acacia Oil & Gas Co., Pawhuska	1,026
Acme Development Co., Tulsa	2,420
Acta Oil Co., Okmulgee	1,342
Adams & McGahey, Ardmore	120
Adams & Prince, Ardmore	4,041
Advance Co., The, Ft. Worth, Texas	303
Aggas, John, Morris	391
Ajax Oil Co., Tulsa	557
Aladdin Oil Co., Kansas City, Mo.	371
Albert, W. O., Tulsa	433
Albion Oil Co., Tulsa	7,416
Alcorn Oil Co., Tulsa	39,027
Aldrew Oil & Gas Co. Tulsa	1,995
Alexander, J. H., Tulsa	254
Alexander - Shakely Petroleum Co., Tulsa	6,115
Allen, G. R., Tulsa	237
Allen, J. R., Tulsa	933
Allen, Sam T., Sapulpa	367
Allen Well Co., Ardmore	844
Allison, J. F., Trustee, Okmulgee	690
Almeda Oil Co., Tulsa	4,200
Alton Oil Co., Bartlesville	215
Amerada Petroleum Co., Tulsa	896,541
American Contracting & Producing Co., Bartlesville	256
American Eagle Oil Co., Bartlesville	23,923
American Oil Development Co., Pittsburgh, Pa.	12,552
American Oil & Gas Co., Bartlesville	5,745
American Pipe Line Co., Wichita Falls, Texas	4,705
American Royalty Co., Tulsa	687
American State Bank, Boynton	229
Amster, N. L., Ardmore	23,607
Ancutt, G. C. & H. S. Swift, Tulsa	98
Anderson, C. F., Trustee, Dallas, Texas	3,025
Andes Oil & Gas Co., Tulsa	398
Anglo-Texas Oil Co., Tulsa	14,989
Anthony, S. W., Mounds	846
Arkansas Fuel Oil Co., Pittsburgh, Pa.	3,642
Arkansas City Refining Co., Arkansas City, Kans.	2,791
Arthur Oil Co., Sistersville, W. Va.	8,405
Ashland Oil Co., New York, N. Y.	4,092
Associated Oil Producers, Chicago, Ill.	3,390
Associated Oil Producing Co., Dallas, Texas	219,092
Atchison Oil & Gas Co., Atchison, Kansas	2,111
Aubyme Oil & Gas Co., Garber	3,703
Ault, J. T., Cleveland	52
Avery Oil & Gas Co., Tulsa	1,904
Aymer, Chas., Nowata	422
Baker, Frank W., Tulsa	912
Baker Oil & Gas Co., Independence, Kansas	145
Baker & Strawn, Tulsa	17,694
Ball, Cora G., Trustee, Coffeyville, Kansas	1,38
Bamm Oil Co., Tulsa	14
Bank of Commerce, Okmulgee	41
Barbara Oil Co., Okmulgee	15,26
Barber, R. W., Okmulgee	77
Barber Oil Co., Tulsa	36
Barnsdall Oil Co., Tulsa	425,99
Barrows, Elva C., Tulsa	1
Bartles-Johnstone Oil Co., Bartlesville	61
Bartlesville Oil & Improvement Co. Bartlesville	13
Bartlett, D. A., Estate, Marietta, O.	25
Bartlett, R. H., Receiver, Tulsa	3,59
Bauder & Franklin, Tulsa	29
Baum, Henry, Ardmore	1,09
Baynes, John A., Executor, Mounds	20
Bay State Oil & Gas Co., Kansas City	16,99
Bay State Oil & Gas Co., Kansas City, Mo., and Paden Oil Co., Oklahoma City	5,74

Company and Location—	Barrels
Beggs Oil & Gas Co., Okmulgee	12,782
Bell Oil & Gas Co., Warren, Pa.	4,220
Benage, F. L., Delaware	2,175
Bergen Oil & Gas Co., Tulsa	4,815
Berlin & Duffield, Tulsa	764
Berlin, Duffield & Moore, Tulsa	624
Berry, George D., Coffeyville, Kans.	1,348
Berry Petroleum Co., Tulsa	152,015
Bertenshaw, H. G., Nowata	1,958
Ben Frank Oil Co., Enid	608
Best, F. A., & W. J. Lambert, Tulsa	120
Betty G. Petroleum Co., Cement	487
Betty Ruth Oil Co., Broken Arrow	538
Bevins, C. T., Tulsa	127
Biddle Oil Co., Tulsa	1,229
Big Four Petroleum Co., Oilton	1,975
Big Windy Oil Co., Tulsa	859
Billy Oil Co., Chelsea	170
Bingman, O. A., Okmulgee	725
Bingman, W. B., Okmulgee	675
Bingman, W. B., Trustee, Okmulgee	406
Bingman-Smith Oil Co., Okmulgee	3,457
Bird Creek Oil & Gas Co., Tulsa	1,010
Bird, Gaffney & Simons, Bradford, Pa.	1,064
Bisett, Lytle & Gray, Tulsa	5,487
Bishop Oil Co., Tulsa	175
B. Jack Oil Co., Sapulpa	759
Black, J. J., Phoenix, Ariz.	176
Black, Oliver C., Tulsa	1,610
Black, W. A., Montreal, Canada	152
Black Gold Producing Co., Tulsa	373
Black-Panther Oil & Gas Co.-Turner & Stone, Trustees, Oklahoma City	21,384
Black, Sivalls & Bryson, Inc., Bartlesville	10,382
Blackstone Oil Co., Tulsa	3,395
Blackwell Oil & Gas Co., Blackwell	186,165
Blakeslee, H. W., Nowata	1,752
Bloch Investment Co., Tulsa	452
Bloch Oil Co., Tulsa	1,044
Blubaugh, Geo. L., Coffeyville, Kans.	152
Blum Oil Co., Nowata	73
Bole, Geo. S., Tulsa	31,969
Baxter, A. B., Estate, Atlantic City, New Jersey	497
Baxter, L. W., Tulsa	416
B. B. & Waite Drilling Co., Bartlesville	67
Beacon Oil Co., Bartlesville	12,783
Beal, C. E., Depew	842
Beams, Drew, Okmulgee	1,542
Bean, Howard Drilling Co., Okmulgee	5,812
Beattie, R. L., Trustee, Bartlesville	125
Beau-Ard Oil Co., Ardmore	960
Beauchamp, John L., Tulsa	200
Bebout, W. M., Bartlesville	318
Boles, Neal & Perry, Cleveland	716
Boliver Run Oil Co., Tulsa	1,204
Bonifield, H. A., Elmore City	250
Bonnell, John H., Los Angeles, Calif.	1,275
Boop, Sitz, Glass & Calvert, Nowata	63
Bovaird, W. M., Tulsa	292
Bovaird, W. M.-Coser, Sapulpa	8,612
Braden, C. E., Tulsa	298
Braden Co., The, Tulsa	3,638
Braden & Moore, Tulsa	13,911
Braden & Beren, Eldorado, Kans.	732
Bradfield, C. H., Receiver, Tulsa	4,505
Bradford Oil Corporation, Robinson, Illinois	982
Bradley, E. A., Anna and Arch E., Tulsa	1,719
Bradley, Anna, Irene G., Hildith, Edith Parr, Maude A. Bynum, Tulsa	1,066
Bradnorking Oil & Gas Co., Tulsa	940
Bradstreet, J. G., Muskogee	255
Bradstreet, J G. & Co., Tulsa	544
Brady, E. H., Tulsa	744
Brady, E. H., Tulsa; John Swanson and Fred Swanson Estate, Chanute, Kans., and Dan Kelly, Marietta, O.	1,960
Brandes Oil Co., Nowata	126
Brann, James, Bartlesville	3,275
Branson & Harmon, Nowata	1,112
Breene, Frank M. et al, Tulsa	18 619
Breene, Frank M. Trust Estate, Tulsa	33,499
Breene, Mabel V., Tulsa	92
Brewer, R. P., Trustee, Tulsa	5,812
Bridgman, Welsh & Haner, Muskogee	925
Bridgman, F. R., London, Ohio	1,235
Bridgman Oil Co., Nowata	284
Bright, Samuel, Okmulgee	1,060
Brittain, R. E., Oklahoma City	15,230
Britton-Johnson Oil Co., Tulsa	13,520
Brock, C. N., Okmulgee	1,425
Brock, John L., Jr., Okmulgee	6,750
Brown, Charles H., Oklahoma City	28
Brown, E. A., Greencastle, Ind.	925
Brown, Dr. Geo. W., Los Angeles	458
Brown, Guy, Oil Co., Wichita Falls, Texas	4,037
Brown, L. H., Butler, Pa.	133
Brown, Robert D., Trustee, Kansas City, Mo.	2,920
Brown, Robert D., Trustee, Kansas City, Mo.	1,126
Brown, Tracy D., Receiver, Tulsa	12,400
Brown, W. E., Co., Tulsa	1,173
Brown Oil & Gas Co., Morris	100
Bruen, Rigdon & Bruen, Kansas City	617
Brundred Oil Corporation, Oil City, Pennsylvania	1,709
Bruner Oil Co., The, Independence, Kansas	510
Bryan, Frank, Tulsa	171
Bucher, P. O., Bartlesville	473
Buckles, C. O., Tulsa	1,960
Buchner, Guy M., Holdenville	53
Bull Head Oil Co., Ardmore	889
Bu.ke & Greis, Tulsa	568
Burke-Greis Oil Co., Tulsa	117,276
Burke-Hoffeld Oil Co., Tulsa	14,420
Burke, R. J., Shawnee	1,045
Burns, J. R., Lawton	206
Burton-Springfield Oil Corporation Tulsa	7,107
Bushfield & Co., Chelsea	534
Butler, A. B., Guardian, Oklahoma City	144
Butler & Johnstone, Oklahoma City	264
Buttram, Frank, Oklahoma City	273,508
Buttram Petorleum Corporation, Oklahoma City	108
Bu-Vi-Bar Petroleum Co.poration, Bristow	17,278
Byers, C. F., Sapulpa	331
Byers, Mrs. Myrtle S., Nowata	17
Cabin Valley Mining Co., Chelsea	2,666
Cala Belle Oil Co., Cement	626
Callahan Oil Co., Omaha, Neb.	321
Callihan, W. F., Sapulpa	434
Cameron Refining Co., Ardmore	75,869
Campbell, H. B., Welch	295
Campbell, H. L., Trustee, Nowata	560
Campbell, H. L., Nowata	435
Campbell, Hanlin & Cobbs, Nowata	118
Campbell, J. A., No. 2, Tulsa	352
Campbell Oil Co., Tulsa	6,703
Campbell & Wolford, Tulsa	892
Campbell, H. C., Nowata	1,693
Canada Oil Co., Nowata	500
Canary & Canary, Littleton, Colo.	3,005
Canary, E. L. & A. J., Caney, Kans.	2,313
Canary, J. D., Littleton, Colo.	4,393
Canary, S. C., Tulsa	8,796
Canary-Sinclair, Littleton, Colo.	138
Canfield, W. E. & G. W., Yale	745
Canterbury, S. L., Bristow	2,963
Carder, A. E. et al, Coweta	422
Carey Oil & Gas Co., Wellsville, N. Y.	474
Carlin, Maud, Haskell	64
Carlock & Dexter, Ardmore	3,442
Carlock, J. H., Trustee, Ardmore	9,975
Carner, Akin & Argue, Bartlesville	1,044
Carpathia Petroleum Co., Tulsa	24,371
Carr, J. M., Okmulgee	154
Carr, M. L., Okmulgee	8,416
Carson, W. A., Oklahoma City	2,100
Carter Oil Co., Tulsa	2,188,536
Cassidy, Alice M., Administratrix, Guthrie	3,556
Catlett-Davis Oil Corporation, Tulsa	129
Catlett, J. G., Tulsa	975
Central Petroleum Co., Tulsa	11,373
Central Producing Co., Muskogee	44
Central State Oil & Gas Co., Tulsa	1,993
Chamberlain, Cecil C., Tulsa	397
Chamberlain, H. G., Marietta, Ohio	279
Champlin & Bass., Inc., Enid	3,935
Champlin Refining Co., Enid	13,514
Chapman, O. H., Waxahachie, Texas	989
Chason, Frank, Okmulgee	1,082
Chestnut & Smith, Tulsa	178
Chestnut & Smith Corporation, Tulsa	9,068
Chic-Osage Oil & Gas Co., Tulsa	313
Chief Bigheart Oil & Gas Co., Wichita, Kans.	75
Chief Drilling Co., Okmulgee	210
Choctaw Oil Producing Co., Tulsa	940
Cimarron River Oil & Gas Co., Oklahoma City	1,622
Cline Oil Co., Wichita Falls, Texas	160
Clarion Oil Co., Houston, Texas	10,497
Clark, H. E., Okmulgee	608
Clark, L. P., Independence, Kans.	201
Clarke, Maurice G., Muskogee	216
Claymo Oil & Gas Co., Clayton, Mo.	430
Cleeton Oil Co., Cleveland	761
Cobb, Guy P., Ardmore	2,740
Cobb & Hollingsworth, Ardmore	540
Cobleigh & Shipman, Bartlesville	460
Coe, R. W., Trustee, Ardmore	16 112
Coe, R. W., Ardmore	1,809
Coen, C. W., Trustee, South Bend, Indiana	475
Cohen, Aaron, Baltimore, Md.	1,798
Cole Oil Co., Tulsa	139
Coline Oil Co., The, Oklahoma City	170,318
Collins, Ida M. & Ray M., Tulsa	700
Collins, June H., Tulsa	246
Colpitt, C. R., Collinsville	456
Columbia Petroleum Co., Tulsa	1,780
Comar Oil Co., St. Louis, Mo.	3,285,489
Commercial Drilling Co., Tulsa	4,043
Commendable Oil Co., Oklahoma City	37
Commonwealth Oil Co., Warren, Pa.	1,154
Compton, O. W. et al, Independence, Kansas	387
Comstock, A. C., Tulsa	475
Connely, E. A., Tulsa	4,513
Connelly, E. L., Tulsa	130
Connelly, E. L. et al, Tulsa	5,113
Connelly, G. W., Caney, Kans.	1,994
Connelly, W. C., Tulsa	462
Constantine, C., Pawhuska	1,922
Continental Oil Co., Denver, Colo.	145,053
Continental Oil Co., Oklahoma City	14,475
Continental Refining Co., Independence, Kans.	2,376
Continental Supply Co., St. Louis, Mo.	3,435
Coombs Oil, Gas & Land Co., Bartlesville	1,050
Cora Exploitation Co., St. Louis, Mo.	802
Corbin & Haver, Tulsa	3,129
Corona Oil & Gas Co., Cleveland	3,161
Corona Oil Co. (N. T. Gilbert and Julius M. Mayer, Receivers), Tulsa	6,505
Correne Oil Co., Tulsa	1,860
Cortez Oil Co., Tulsa	166,371
Corry, L. L., Fresno, Calif.	73
Cosden, J. S., Tulsa	2,784
Cosden Oil & Gas Co., Tulsa	194,200
Cotton Belt Petroleum Co., N. T. Gilbert, Receiver, Tulsa	42,648
Cowles, La Monte, Burlington, Iowa	355
Cowling, L. A., Porter	578
Cox, Frank, Shoshone, Idaho	193
Craig, D. F., Independence, Kans.	178
Crawford, J. W. R. & Sons, Inc., Tulsa	513
Creekmore, Morrison & Wolfe, Tulsa	323
Cremsl Oil Co., Bartlesville	94
Creo Oil Co., Tulsa	12,395
Crescent Oil Co., Bartlesville	539
Crews Estate Oil & Gas Production, Enid	26,807
Criswell, Georgia B., Haskell	630
Critchlow, W. S., Ardmore	746
Crockett, Elizabeth R., Oklahoma City	96,536
Cronable & Hess, Bartlesville	389
Crosbie, Davis, Sloan & Sturm, Tulsa	2,280
Crosbie & Gillespie Gasoline Plant, Tulsa	3,767
Crosbie, Sturm & Davis, Tulsa	2,955
Crosby Drilling Co., Inc., Olean, N.Y.	258
Crown Petroleum Corp., Houston, Tex.	26,356
Cruce & Porter, Ardmore	1,298
Cruce-Smith-Cruce, Ardmore	2,624
Crump & Beard, Duncan	5,105
Crump, J. L., Duncan	7,236
Cuckow, C. J., Steedham	759
Cudahy Oil Co., Cleveland, Ohio	25,859
Cumberland Petroleum Co., Cleveland, Ohio	34,043
Curtin & Aiken, Tulsa	498
Curtis, W. L. Co., Elmira, N. Y.	188
Curtin, W. L. Co., and F. M. Aiken, Inc., Elmira, N. Y.	1,527
Cusack, F. E., Okmulgee	1,327
Cushing Gasoline Co., Tulsa	7,542
Custer Oil Co., Okmulgee	1,027
Daisy Belle Petroleum Co., Ardmore	6,382
Dallas Co., Tulsa	4,568
Damme-Pringle Oil & Gas Co., The Okmulgee	709

Company and Location—	Barrels
Damon Oil Co., Tulsa	2,200
Dana Oil Co., Bartlesville	904
Danciger Oil & Refg. Co., Tulsa	726
Dannenburg, Sarah E., Executrix, Chelsea	275
Darby-Lynde Co., The, Tulsa	1,105
Darby-Petroleum Co. of New York, Tulsa	635
Davis, Joseph D., Tulsa	147
Davis, C. P., Bristow	1,911
Davis, L. R., Tulsa	1,100
Davis, R. D., Cleveland,	503
D. C. F. S. & Co., Ardmore	523
Dean, John, Estate, Guthrie	945
Deems, H. C., Tulsa	570
Deep Fork Oil Co., Marietta, Ohio	2,500
Deep Rock Oil & Refining Co., Tulsa	52,806
Dehner, A. L., Tulsa	29
Deichman, Peter, Receiver, Tulsa	391
Dekoma Development Co., Tulsa	330
Delaware-Cherokee Oil Co., Dewey	2,744
Delmar Oil Co., Bartlesville	84,748
Delna Oil & Gas Co., The, Muskogee	1,526
Delokee Gas & Oil Co., Bartlesville	1,792
De Long, R. J., Cleveland	141
Demack Oil Co., Tulsa	86
Dempsey Oil Corporation, New York	2,575
Dempsey, John J., New York, N. Y.	97
Dennis, M. A., Receiver, Okmulgee	327
Denver Producing & Refining Co., Okmulgee	1,554
De Soto Gasoline Co., Houston, Tex.	1,471
De Vinna, M. A., Tulsa	455
Devonian Oil Co., Tulsa	141,917
Dewey Portland Cement Co., Dewey	899
Dierks, Fred H., Trustee, Kansas City	1,568
Dierks, Fred H., Trustee, Kansas City	1,999
Dickerson, O. W., Oil Co., Oklahoma City	148
Dickson, C. E., Owasso	675
Dilley, W. Y., Trustee, Waurika	1,668
Dixie Oil Co., Inc., Shreveport, La.	283,420
Dixie Oil Co., Cement	2,545
Dixon, H. O., Bartlesville	4,409
Doak, James, Cushing	225
Dock Oil & Gas Co., Bartlesville	784
Dodd, William A., and J. C. Ohover, Tulsa	1,334
Dolman, L. S., Walter H. Gant, and S. W. Tyer, Ardmore	8,254
Dominion Oil Co., Washington, D. C.	244
Donnelly, J. E., Tulsa	200
Donahoe, J. L., Tulsa	1,794
Donohue, W. J., Bartlesville	100
Doris Oil & Gas Co., Tulsa	902
Douthitt & Melton, Duncan	132
Douglass, Harvey, Att'y., Chelsea	430
Dover Oil Co., Bartlesville	790
Doyle, Pearl Kevs, Kansas City, Mo.	350
D. & S. Oil & Gas Co., Tulsa	1,300
Duffield & Howard Oil Co., Tulsa	3,368
Duffield, L. C. & Co., Tulsa	4,385
Duffield, Lewis C., Tulsa	862
Dunn Oil Co., Tulsa	395
Dunn Mineral Trust, Ardmore	4,223
Dunnington, A. S., Tulsa	458
Dwyer, J. D., Tulsa	4,158
Eartex Petroleum Co., E. S. Hall, Receiver, Duncan	250
Eason, T. T., Enid	238
Eastern Oil Co., Buffalo, N. Y.	110,303
Ebling, L. R. & Co., Bartlesville	1,612
Echo Oil Co., Tulsa	32,622
Eliza-Tim Oil Co., Sapulpa	363
Elk Producing Co., Tulsa	1,466
Ellen Oil & Gas Co., Tulsa	2,606
Elliott, W. C., Tulsa	336
Elliott & Smith, Tulsa	9,451
Elliott & Vensel, Tulsa	10,342
Ellis, M., Tulsa	5,512
Elmer Oil Co., Elmira, N. Y.	2,245
Elo Oil Co., Tulsa	1,101
Emery Bros., Bradford, Pa.	4,644
Empire City Co., Tulsa	1,398
Empire Gas & Fuel Co., Del-Okla., Bartlesville	251,410
Enfisco Oil Corporation, Tulsa	12,240
Enid 80 Oil & Gas Co., Enid	355
Enterprise Transit Co., Titusville, Pa.	3,730
Erton Oil Investment Co., Pawhuska	3,512
Evans, O. M., Bristow	1,075
Evidence Oil Co., Caney, Kans.	1,080
Exchange Oil & Gas Co., Tulsa	2,018
Exchange Nat'l Bank of Tulsa, Tulsa	5,295
Exchange Nat'l Bank of Tulsa, Tulsa	1,584
Exchange Trust Co., Receiver, Tulsa	140
Exchange Trust Co., Receiver, Tulsa	69
Faltinson, A., Tulsa	5,765
Fan-Elva Oil & Gas Co., Pittsburgh, Pennsylvania	1,739
Farmer, A. L., and A. E. Duran, Tulsa	233
Farr, Essie, Okmulgee	170
Farren, C. F., Tulsa	6,331
Fay Drilling Co., Tulsa	105
Federal Oil Corporation, Cleveland, Ohio	87
Fee Oil Co., Muskogee	203
Fellowship Oil & Drilling Co., and S. J. Dunn, Tulsa	173
Fern Oil & Gas Co., Yale	5,425
Fidelity State Bank, Cleveland	26
Fifty-Nine Osage Oil Co., Bartlesville	42,695
Finance Oil Co., Pawhuska	21,459
Finance Oil Co. and Livingston Oil Co., Pawhuska	616
First National Bank, Trustee, Coweta	626
First National Bank, Trustee, Coweta	375
First National Bank, Dewey	494
First National Bank, Haskell	156
First National Bank, Trustee, Coweta	95
Fisher Oil Co., The, Pittsburgh, Pa.	506
Fitzgerald, D. C., Trustee, Ardmore	9,434
Fitzgerald, H. L., Tulsa	44
Fitzgerald, John W., Bartlesville	196
Fitzgerald & Withington, Tulsa	1,355
Flanagan & McGrath, Delaware	178
Flat Rock Oil Co., Tulsa	1,509
Fleming, Martin C., Tulsa	2,200
Fleming & Bedford, Chelsea	115
Flight, D. B., Dewey	105
Flora-Okla. Oil Co., Cement	6,336
Foltz, John M., Muskogee	555
Force Oil Co., Tulsa	182
Forster, Sadie F., Dallas, Texas	1,349
Fort Ring Oil & Gas Co., Ft. Worth, Texas	6,003
Fortuna Oil Co., Dallas, Texas	392,858
Foster Investment Co., Tulsa	48,380
Foster Petroleum Corporation, Bartlesville	37,364
Foster & Davis, Inc., Bartlesville	15,167
Foster & Leech, Bartlesville	253
Fox, W. T., Sapulpa	540
Fox Petroleum Co., Ardmore	7,386
Franchot, D. W., & Co., Tulsa	25,882
Francis, W. C., Skiatook	249
Franklin Oil Co., Franklin, Pa.	411
Frates Oil Co., Tulsa	206
French, M. C., Okmulgee	222
Funk, A. L., Tulsa	3,175
Gaffney, H. E., Estate, and H. B. Gaffney, Bradford, Pa.	2,417
Gaffney, H. E., Estate, and Olive Gaffney, Bradford, Pa.	1,083
Galbraith, H. H., et al., Independence, Kansas	2,684
Galvez Oil Corporation, Tulsa	11,644
Gambill, G. W., Terre Haute, Ind.	1,855
Gamo Oil Co., Claremore	282
Gant, Walter H., Ardmore	3,092
Gardner, H. N., Tulsa	695
Gardner, J. H., Okmulgee	906
Gardner Oil Co., Tulsa	83
Gardner Petroleum Co., Tulsa	102,360
Gardner & Avery, Tulsa	225
Garis, Ralph, Chelsea	50
Gates Oil Co., Oklahoma City	306
Gates Oil Co., Ardmore	32,404
General Petroleum Engineers, Inc., Tulsa	230
Geneva Pearl Oil & Gas Co., Ardmore	3,455
Genevra Oil Co., The, Bartlesville	609
Georgia Oil & Gas Co., Copan	2,981
Gerlach, A. P., Estate, Tulsa	505
Getty, Geo. F. et al., Tulsa	778
Getzendaner, R. W., Waxahachie, Texas	1,095
Gibson-Zahniser Oil Corporation, Tulsa	9,700
Giddings, F. C., Tulsa; C. L. Egan, Denver, Colo.; R. A. Welch, Houston, Texas; A. B. D. Cague, Tulsa, and W. H. Grah, Tulsa	824
Gilchrist, H. M., Estate, Bartlesville.	947
Gill, A. J., Okmulgee	205
Gilcrease Oil Co., Tulsa	34,548
Gillespie, F. A., & Sons Co., Tulsa	37,355
Gillespie, Joe, Coffeyville, Kans.	88
Gillette, J. M., Tulsa	1,570
Gilliland Oil Co., Tulsa	80,110
Gilmer Oil Co., Ardmore	35,254
Gilmer Oil Co., Lamine, Mo.	80
Gladys Belle Oil Co., Tulsa	23,300
Glass, J. Wood, Nowata	482
Glass & Harmon, Nowata	6,886
Glass, Reed & McSpadden, Nowata	248
Glass & Weaver, Nowata	80
Gled Oil Co., Tulsa	843
Goble, B. G., Tulsa	984
Goddard, C. B., Ardmore	2,575
Godfrey, F. L., Enid	996
Goldie Oil & Gas Co., Kansas City	789
Goodyear Oil Co., Tulsa	2,469
Gordon, Mary Louise, Beverley Hills, California	1,628
Gorman, M., Trustee, Ardmore	1,240
Gorton Trust, The, Cement	8,904
Graham, James H., Bartlesville	11,906
Graham Mineral Trust, Ardmore	3,474
Graham Oil Syndicate, Chickasha	289
Grand Duke Prod. Co., Muskogee	578
Gray, W. B., Tulsa	230
Gray Oil Co., Tulsa	6,433
Great Southwestern Petroleum Co., Oklahoma City	215
Green, W. B., Oklahoma City	7,811
Greenfield Trust, The, Rock Island, Illinois	877
Greenwalt, H. L., Okmulgee	360
Gregg, C. O., Ardmore	4,680
Grieves, John B., Terlton	9,171
Griffin Producing Co., The, Tulsa	3,623
Grimes, W. Baker, Tulsa	200
Grimes, Blair et al, Tulsa	362
Grimes & Gillespie, Tulsa	43,937
Grimes, Parent, Gillespie & Dickson, Tulsa	80
Grubbs, E. B., Muskogee	409
Guardian Oil Co., Inc., Tulsa	8,252
Gypsy Oil Co., Tulsa	2,677,565
H. & M. Petroleum Co., Tulsa	1,050
H. C. W. Oil Co., Chelsea	502
Hale, C. R. et al., Bartlesville	2,321
Hales, W. T., Oklahoma City	94,751
Haley, Garber & Pulse, Enid	2,127
Halfast, E. W., Muskogee	300
Halfmoon Oil Co. and W. B. Bailey, Bartlesville	388
Hall & Lucas, Duncan	1,110
Hall, John M., Tulsa	142
Halsell & Son Oil & Gas Co., Vinita	1,422
Henryetta Oil & Gas Co., Henryetta	900
Holtzendorff, C. B.; John Q. Adams,	
Holmes, B. F. & Co., Lyons, Kans.	639
Holmes Oil Co., The, Lyons, Kans.	133
Alex A. Dennison and A. D. Tusing, Claremore	133
Hambro Oil Co., St. Louis, Mo.	3,352
Hamilton, W. R., Dewey	1,281
Hammat, D. M., & Co., Tulsa	1,095
Hamill, A. W., Tulsa	250
Hamon & Colcord, Ardmore	14,840
Hamon, Jake L., Jr., Ardmore	436
Hamon, Jake L., Estate, Ardmore	12,249
Haubert, H. J., Tulsa	315
Hancock Oil Co., Tulsa	582
Hancox, T. H.; I. W. Hancox, T. H. Hancox, Jr., and L. L. West, Tulsa	854
Hancox, T. H., Tulsa	433
Hand, H. M., Tulsa	116
Haner Oil & Ref. Co., Muskogee	459
Haner, J. A., Tulsa	1,947
Haner, J. L., Muskogee	90
Hannis Oil Co., Tulsa	285
Harland Oil Co., Pittsburgh, Pa.	28,621
Harlin, E. C. et al, Welch	147
Harmon, C. C., Nowata	1,752
Harmon, W. J., et al, Okmulgee	563
Harmon, W. J., et al, Okmulgee	4,722
Harold Pet. Co., Blackwell	2,104
Harry & H. C. Ewes & Sons, Peru, Kansas	211
Harrington, W. J., Coffeyville, Kans.	3,088
Harrington, W. M., Marietta, Ohio	140
Harrington, Lillian F. No. 4, Tulsa	46
Harrington, Lillian F. No. 5, Tulsa	202
Harris-Hays Co., Okmulgee	1,524
Harris, Haun & O'Shaughnessy, Blackwell	945
Harris, Mrs. L. C., Rising Sun, Ind.	944
Harris-Strawn Oil Co., Ardmore	3,496
Harris, T. D., Trustee, Tulsa	30
Hartman & Mann, Pittsburgh, Pa.	462
Hartz, Ben, Baltimore, Md.	300

Company and Location—	Barrels
Harwell, E. P., Tulsa	9,210
Haskell, F. K., Agent, Bartlesville	769
Haskell, F. K., Bartlesville	230
Hastings, W. T., Marietta, O.	279
Hatch, G. W., Nowata	142
Haury-Manahan & Co., Blackwell	3,176
Hayner Pet. Co., Tulsa	808
Hays Oil Co., The, Oil City, Pa.	728
Hayden, John F., Tulsa	914
Haze, S. P., Tulsa	208
Hazlett, A. G., Morris	1,300
Hazlett, Bradford & Frazier Bros., El-Dorado, Kans.	2,842
Healdton Field Oil Co., El Reno	1,110
Healdton Oil & Gas Co., Enid	113,881
Hector Oil Co., Bartlesville	35
Heenan, J. A., Ardmore	1,809
Heenermann, Earl H., Chicago, Ill.	278
Hefner Co., The, Ardmore	1,033
Heggem & Davis, Tulsa	1,489
Helena Oil & Gas Co., Tulsa	13,888
Henson Producing Co., Tulsa	296
Henderson Co., The, Tulsa	216
Henderson & Holden, Eldorado, Kans.	781
Hendricks, H. G., Bristow	275
Hendricks, Ida, Tulsa	72
Hennessey, J. E. & J. H. Thompson, Okmulgee	98
Hennessey, J. E., Okmulgee	1,436
Henry Oil Co., The, Tulsa	9,640
Henry & Avers, Inc., Tulsa	1,030
Henton, E. L., et al, Chelsea	1,243
Herbert Oil Co., Ft. Worth, Texas	55,217
Hertzel, F. E., Warren, Pa.	1,834
Hewitt Mineral Trust, Ardmore	1,200
Hibbard, S. B., S. S. Glasscock & Jno. R. Hammond, trustees, Kansas City, Mo.	1,090
Hickernell, G. W., Warren, Pa.	547
Hickman, L. D., Arkansas City, Kans.	150
Higgins Oil & Fuel Co. & Pulaski Oil Co., Tulsa	2,746
Highway Oil Ref. Corp., Tulsa	6,191
Hillside Oil, Gas & Coal Co., Aurora, Illinois	606
Hillside Oil Co., Tulsa	3,209
Hilltop Oil Trust, Ardmore	4,498
Hinerman & Marshall, Tulsa	4,532
Hinkle, Fitzgerald & Westheimer, Ardmore	5,382
Hippodrome Oil Co., Tulsa	615
Hiram Oil & Gas Co., Kellyville	1,407
Hiteshew, W. B., Trustee, Robinson, Illinois	428
Hockensmith, R. A., Okmulgee	925
Hoefer, Perry A., Ponca City	11,067
Hoefer, C. C., Kansas City, Mo.	42
Hoffer Oil Corp., Ft. Worth, Texas	5,158
Hoge, J. B., Nowata	230
Holbrook, H. T., Tulsa	76
Holden Oil Co., Tulsa	668
Hollis, Elsie B., Los Angeles, Calif.	156
Holm, Coombs & Chapman, Bartlesville	623
Holmes Oil Co., Tulsa	6,316
Home Gas Co. of Cushing, Cushing	14,235
Homaokla Oil Co., Okla. City	29,024
Hope Pet. Corp., Tulsa	5,647
Hornecker & Graham, Tulsa	402
Hornecker & Bagler, Tulsa	2,258
Hornecker, Henry, Tulsa	648
Hornecker, Miller & Dunigan, Tulsa	245
Horner, W. H., Cleveland	283
Howard Pet. Corp., Tulsa	686
Howard, Duffield & Berlin, Tulsa	6,046
Howard, O. R., Tulsa	37,045
Huckleberry, J. H. No. 5, Kansas City, Mo.	21
Huddleston, C. T., Tulsa	1,675
Hudson Oil Co., Wellsville, N. Y.	198
Hughes, R. A., Cygnet, O.	357
Hughes, T. J., Cushing	275
Hughes Stone Co., The, Tulsa	814
Hughes-Solether & Brecht, Cygnet, O.	186
Hughes & Schwyn, Cygnet, O.	466
Hulen, H. E., Bartlesville	1,239
Hulings, F. W. & D. M. Smith, Okmulgee	418
Hulings, F. W., Harlingen, Texas	495
Hulings, F. W., Trustee, Harlingen, Texas	229
Hulings, M. C., Tulsa	180
Hull, J. A., Tulsa	176
Hull, J. A. Co., Tulsa	38,225
Hull, J. D., Tulsa	75
Humble Oil & Ref. Co., Houston, Texas	284,692
Hummel, Chas. S., Chelsea	430
Hummel, Mrs. Sadie L., Chelsea	235
Humphreys, L. L., Duncan	1,375
Hurd, Paul R., Broken Arrow	188
Hurdle, H. J., Mounds	172
Hurford, G. H., Tulsa	475
Hutch Oil & Gas Co., Kansas City, Mo.	352
Hutchinson, E. A., Trustee, Bartlesville	486
Hutchison, L. L., Trustee-Kanola Oil & Ref. Co., Tulsa	1,747
Ideal Royalty Co., Tulsa	1,845
Illata Oil Co., Vinita	59
Illinois Oil Co., Chicago, Ill.	1,376
Illinois Ref. Co.-Kawfield Oil Co., Cushing	9,757
Imo Oil & Gas Co., Covington	13,938
Independence Oil Co., Bartlesville	1,251
Independent Oil & Gas Co., Okmulgee	489,408
Indiahoma Oil Corp., Okmulgee	20,658
Indian Terr. Ill. Oil Co., Bartlesville	87,069
Indiana Oil & Gas Co., Tulsa	34,156
Interstate Oil & Gas Co., Bartlesville	4,252
Invader Oil Corp., Muskogee	3,886
Irelan, O. M., Sapulpa	1,961
Iron Mountain Oil Co., The, Tulsa	45,197
Irvine, Jas., Sapulpa	365
Irwin, John S., Bartlesville	774
Irwin & Miller, Bartlesville	1,008
I. X. L. Drilling Co., Tulsa	292
Jacobs, Leo, St. Louis, Mo.	5,042
Jackson, L. B., Sapulpa	645
Jackson, Wise & Bovaird, Sapulpa	1,736
Jackson, Wise & Markham, Sapulpa	4,712
Jackson, Wise & Snedden, Sapulpa	2,245
Jacques, Denton, Arkansas City, Kan.	1,575
Jacques, Effie M., Arkansas City, Kans.	1,575
Jane Oil Co., Okla. City	2,796
Jankowsky, Mose, Tulsa	1,989
Jeannette Oil Co., Chelsea	533
Jeff Oil Co., Chelsea	376
Jelinsk, John, Nowata	411
Jennie Oil Co., Chelsea	263
Jennings, Edw. H. Est., & R. G. Jennings, Pittsburgh, Pa.	245
Jennings, E. H., Bros. Co., Pittsburgh, Pa.	3,188
Jennings, R. G., Pittsburgh, Pa.	14,408
Jennings, R. G. & Snowden & McSweeney Co., New York, N. Y.	3,986
Jenson, H. A., Tulsa	459
Jenson, P. W., Chelsea	323
Jewel Oil & Gas Co., Tulsa	163
Jim-Glenn Oil Co., Tulsa	5,228
Jitney Oil Co., Tulsa	18
Johneda Oil Co., Tulsa	29,925
Johnson, Mrs. C. L., Kansas City, Mo.	125
Johnson, C. O., Ponca City	450
Johnson Oil Ref. Co., Chicago, Ill.	11,344
Johnson Farm Oil Co., Warren, Pa.	1,161
Johnston, T. A. & Co., Okmulgee	135
Jomack Oil Co., Bristow	80,570
Jones, R. C. & Co. Inc., Cushing	613
Josey Oil Co., Tulsa	178,914
Judson Oil Co., N. T. Gilbert, Rec'r., Tulsa	1,557
Kahle, Clyde, Cyril	1,186
Kano Oil Co., Nowata	267
Kanola Oil & Ref. Co., Tulsa	699
Kansas-Okla. Consolidated Oil Co., Minneapolis, Minn.	843
Katy Oil & Gas Co., Bartlesville	1,458
Kaufman, Abe, Ardmore	2,345
Kaw Pet. Co., Tulsa	104
Kay & Kiowa Oil Co., Tulsa	18,515
Keener Oil & Gas Co., The, Tulsa	40,728
Keeter, J. A., Tampa, Fla.	400
Keith, J. H., Coffeyville, Kans.	277
Kell, Frank; C. G. Kemp & Edw. Schlaffke, Electra, Texas	5,215
Kelly, Thos. C., Sapulpa	850
Kelley, Genj. F., et al, Tulsa	168
Kelley, T. G., Trustee, Sapulpa	9,500
Kennedy, J. L. & S. G., Tulsa	1,924
Kennedy, S. G. et al, Tulsa	279
Kennedy, H. W., Tulsa	741
Keno Oil Co., The, Tulsa	580
Kerull Oil Co., Tulsa	2,674
Keys Oil Co., Tulsa	613
Keystone Oil & Gas Co., Independence, Kans.	387
Kewanee Oil & Gas Co., The, Titusville, Pa.	103,895
Kennedy, J. L., Estate, Tulsa	124
King, F. et al, Okmulgee	1,158
King, John Rec., Okmulgee	29,594
King Bros., Okmulgee	2,071
King & Harrington, Tulsa	305
King Phillip Oil Co., New Bedford, Mass.	181
Kingsbury, C. F., Geo. Kinney, E. M. Monsell & C. F. Tingley, Sand Springs	1,776
Kingsbury, C. W., Tulsa	643
Kingsbury, C. W., Geo. Kinney, Sand Springs	136
Kingsbury, C. W., Geo. Kinney, C. F. Tingley & C. B. Stuart, Sand Spgs.	328
Kingsley, W. L., Kansas City, Mo.	155
Kingwood Oil Co., The, Okmulgee	103,380
Kinney, Geo. W., Tulsa	643
Kinney, Geo., Trustee, Tulsa	1,681
Kinney-Wood-McIntyre, Tulsa	268
Kirk Oil Co., Ardmore	28,192
Kirkwood & Kennedy, Tulsa	486
Kirkwood Oil Co., Okmulgee	93,130
Kistler, Ernest L., Tulsa	3,438
Kistler Pet. Co., Tulsa	9,455
Kline & Brann, Inc., Tulsa	4,160
Knappenberger, D. L., Sapulpa	175
Knappenberger, W. E., Tulsa	175
Knickerbocker Oil Co., Tulsa	2,688
Knupp Oil Co. & Phillips Pet. Co., Warren, Pa.	680
Knupp Oil Corp., Warren, Pa.	644
Kunkel, W. A., Bluffton, Ind.	175
Lackawanna Prod. & Ref. Co., Scranton, Pa.	437
Lackey, Frank D., Wilmington, Del.	70
Lahman Bell Oil Co., Dewey	765
Lambert, E. J., Tulsa	2,900
Lambert Oil & Gas Co., Tulsa	6,467
Lamberton, J. S., Tulsa	372
Lamberton, W. J. Est., Tulsa	62
Lamberton & Lasater, Tulsa	193
Lancaster & Grimes, Tulsa	275
Landon, A. M., Independence, Kans.	9,214
Lane, E., Nowata	2,547
Lane Oil Producing Co., Chicago, Ill.	3,144
Lane, S. A., Denver, Colo.	105
Lane & Wasson, Agts., Ardmore	4,964
Large Oil Co., Bartlesville	3,400
Larkin Oil Co., Tulsa	76
Larkin, J. J., Tulsa	542
Larkin & Reynolds, Bartlesville	2,723
Lashley, Theo. G., Boulder, Colo.	475
Lasoya Oil Co., Altoona, Pa.	1,688
Latona Oil Co., Tulsa	255
Laurel Oil & Gas Co., Tulsa	110,106
Lawson, E. B., Nowata	15,725
Lawson & Griffin, Nowata	275
Lawson & Whitehill, Nowata	1,425
Lawton Corp., Okla. City	2,499
Lea Drilling Co., Tulsa	676
Leahy Oil Co., Tulsa	1,333
LeBosquet, Mary E., Tulsa	207
Lebow, C. H., Tulsa	3,454
Lebow, C. H. & Ralph, Tulsa	495
Le Fever, M. M., Chautauqua, Kans.	769
Lennox Oil & Gas Co., Lennox, S. D.	446
Leonard, J. M., Joplin, Mo.	1,048
Leonard Pet. Co., Washington, Pa.	398
Leopold & Brett, Muskogee	227
Lesh Bros. Oil Co., Wichita Falls, Texas	2,505
Lewis, Emery Jr. & Sons., Bradford, Pa.	12 729
Lewis-Clarke Pet. Co., Okla. City	4,306
Lewis Oil Co., Pittsburgh, Pa.	76,377
Levant Oil Co., Ardmore	10,498
Liberty Oil & Gas Co., Warren, Pa.	2,100
Lightning Creek Oil & Gas Co., Wellsville, N. Y.	445
Lima Oil & Gas Co., Bartlesville	4,095
Lincoln Oil & Gas Co., Tulsa	2,573
Link Oil Co., The, Tulsa	26,925
Lippa, Arthur, Tulsa	208
Little Fay Oil Co., Tulsa	20,875
Livingston Oil Corp., Tulsa	14,677
Loar, W. N. & Co., Okmulgee	3.105
Local Oil Co., Warren, Pa.	1,002
Lomore Oil Co., Ardmore	2,868
Lone Star Gas Co., Dallas, Texas	32,545
Lorraine Petroleum Corp., Tulsa	47,580
Louisiana Oil Refining Corporation, Shreveport, La.	6,153
Louvain Oil Co., Bartlesville	1,524
Love, L. H., Ardmore	3,060
Lovell, Dot L., Marietta, Ohio	1,027

Company and Location—	Barrels
Lovell, J. A., Marietta, Ohio	486
Lovett Oil Co., Nowata	1,556
Lowrie, A. L., and F. B. Barnes, Robinson, Ill.	1,457
Lowry Burns Corporation, Wichita Falls, Texas	670
Lowry Oil Corporation, Wichita Falls, Texas	3,336
Lucky Leaf Oil & Gas Co., Blackwell	1,686
Lucky Scott Oil & Gas Co., Independence, Kans.	3,096
Ludey, Charles A., Marietta, Ohio	2,935
Ludowici-Celadon Co., Chicago, Ill.	6,449
Luengene, C. H., Tulsa	6,632
Lutner, T. R., Lawton	550
Lynch, A. E., Chelsea	1,715
Lynch & Baker, Tulsa	5,552
Lynch, C. B. & Co., Tulsa	923
Lyon, Burt W. and Mary J., Los Gatos, Calif.	698
Lyon-Leonard Oil Co., Los Gatos, California	77
Lyon & McKeever, Tulsa	71
Lyons, J., Tulsa	36
Lyons, J. and L., Tulsa	3,435
Lyons Petroleum Co., Denver, Colo.	6,750
Marshall Oil Co., Nowata	220
McAllester, C. T., Sapulpa	68
McBride, W. C., Inc., St. Louis, Mo.	13,967
McClintock, H. H. et al, Bartlesville	1,945
McClintock, R. Otis, Tulsa	517
McConnell, Carol S., Tulsa	1,008
McConnell, Grace M., Oklahoma City	156
McCormick, J. A., Trustee, Muskogee	996
McCormick, Matt, Nowata	68
McCully Oil & Gas Co., Hominy	718
McDonald, B. P., Pawhuska	368
McDonald, J. H., Muskogee	324
McDonnell, John V., Tulsa	364
McFarlin & Chapman, Tulsa	346
McGill, H. R., & Ruth Gilbert, Tulsa	1,740
McGraw, J. J., Tulsa	2,253
McGuire, F. H., Guthrie	828
McKeon, P. G., Tulsa	919
McKay, Margaret C., Sapulpa	965
Makeever Bros., Boston, Mass.	2,073
McKee Oil & Gas Co., Ardmore	2,165
McKinely, George J., Tulsa	80
McLane Farm Oil Co., Tulsa	936
McMahon, C. L., Okmulgee	2,468
McMahon, C. L., Inc., Okmulgee	69,514
McMahon, C. L., & Kennedy, Okmulgee	26
McMahon, D. F., Tulsa	32
McMahon, J. L., Wichita Falls, Texas	96
McMan Oil & Gas Co., Tulsa	141,758
McManus, C. T., Nowata	137
McMillan, W. J., Cleveland	351
McNutt, J. P., Morris	89
McNutt, J. P., and A. L. Davis,, Morris	240
McOwen, Bernard, Estate, Buffalo, New York	1,741
McQueen, I. R., Oklahoma City	12,296
McSpadden, T. F., Nowata	155
Mack Oil & Gas Co., Bartlesville	640
Madden & Madden, Tulsa	5,533
Magna Oil & Refining Co., Tulsa	7,462
Magnolia Petroleum Co., Dallas, Tex.	1,754,175
Maire, F. L., Trustee, Lima, Ohio	365
Maire Bros. & Ebling, Bartlesville	2,680
Majestic Oil, Gas & Refining Co., Du Quoin, Ill.	1,148
Mallory, J. F., and J. W. Stewart, Parkersburg, W. Va.	457
Mallory, S. L., Tulsa	1,001
Mallory, S. T., Tulsa	150
Mallory, S. T. & Co., Tulsa	250
Ma-Lou Oil Co., Pittsburgh, Pa.	2,291
Mammoth Drilling Co., Cement	336
Mancill, H. E., Bartlesville	495
Marcus, B. M., Olean, N. Y.	113
Margay Oil Corporation, Tulsa	57,859
Margulies, Larry J., Tulsa	692
Marietta Oil Co., Marietta, Ohio	1,721
Mark, Clayton, Muskogee	172
Markham, J. H., Jr., Tulsa	55,348
Marland Oil Co. of Oklahoma, Ponca City	323,313
Marland Refining Co., Ponca City	275,260
Marshall Oil Co., Tulsa	199
Martha Oil & Gas Corporation, Tulsa	66
Martin, C. G., Bristow	1,500
Martin, Emma L., Fresno, Calif.	83
Martin, J. E., Tulsa	1,352
Martin, L. J., Tulsa	426
Martin, R. B., Receiver, Tulsa	786
Martin, S. A., Oil & Gas Co., Chelsea	1,131
Mason, D. B., Tulsa	14,185
Mason, Allen, and Newton C. Fassett, Elmira, N. Y.	165
Mason-Beauchamp Oil Co., Tulsa	191
Massey, Alexander, Kansas City, Mo.	572
Matteson, Charles D., St. Paul, Minn.	567
Matthews, R. S., Tulsa	227
Maxson, E. E., Trustee, Owasso	6,735
Maxwell, D. G., Bartlesville	955
Maxwell, D. G., and J. W. Thompson, Bartlesville	1,245
Maxwell, D. G., et al, Bartlesville	816
May, Max, Tulsa	50
Meadors, Frank, Jr., Wetumka	761
Mechling, C. A., Tulsa	294
Mechling & Berlin, Tulsa	1,245
Meridian Oil Co., Inc., Jennings, La.	205
Meridian Petroleum Corporation, W. A. Goforth, Receiver, Tulsa	23,623
Merrick, F. W., Ardmore	14,966
Merrick, F. W., and R. W. Coe, Trustees, Ardmore	21,091
Merrick, Ward S., Ardmore	444
Merrick, Ward et al, Ardmore	1,757
Merrill, Harper & Beard, Hominy	247
Merryman, Roy N., Steubenville, Ohio	178
Messner & Clough, Bartlesville	663
Mexada Oil Co., Ardmore	3,446
Mickleson, D. D., Tulsa	2,098
Mid-Continent Petroleum Corporation, Tulsa	923,562
Mid-Co. Petroleum Co., T. J. Ellis and Harry W Gibson, Receivers, Tulsa	25,891
Middleton, H. B., et al, Woodsfield, O.	137
Mid-Kansas Oil & Gas Co., Findlay, Ohio	276,076
Mid-Kansas Oil & Gas Co., for G. R. Rhodes, Trustee, Findlay, Ohio	15,779
Midland Oil Co., Bartlesville	129,027
Midland Oil & Drilling Co., Oil City, Pennsylvania	178
Midland Securities Co., Tulsa	9,200
Mid-Union Drilling Co., Duncan	325
Miller, George L., Marland	1,275
Milroy Petroleum Co., Duncan	998
Minnehaha Oil Co., Menasha, Wis.	625
Minnehoma Oil & Gas Co., Tulsa	64,028
Minshall, E. R., Tulsa	15,268
Minshall, E. R. & Co., Tulsa	6,966
Minshall Oil & Gas Co., Tulsa	2,956
Misener, F. D., Tulsa	16,414
Mitchell, E. D., and C. D. Jenal, Tulsa	359
Mitchell, Mark D. & Co., Independence, Kans.	810
Mitchell, Thomas H., Morris	75
Mitchell, Thomas H., Trustee, Morris	175
Mitchell & Murrow, Independence, Kansas	174
Modern Oil Co., The, New York	1,170
Moffitt, John, Oklahoma City	364
Mohawk Petroleum Co., Tulsa	3,032
Mooney & Holtzendorff, Claremore	347
Moore, Clint, Estate, Tulsa	14,970
Moore, Frank L., Tulsa	5,040
Moore, J. E., Owasso	15
Moore, J. Stanley, Tulsa	1,820
Monroe, J. E., Trustee, Tulsa	940
Monte Cristo Oil Co., Tulsa	466
Montezuma Oil Co., Tulsa	723
Morrison, James B., Tulsa	491
Morrison & Jackson, Sapulpa	5,179
Morton & Co., Bartlesville	26,950
Morton Oil & Gas Co., Pittsburgh, Pennsylvania	208
Morton Petroleum Co., Bartlesville	1,694
Moseley, C. F., Bartlesville	3,190
Moseley, W. H., Bartlesville	1,450
Mosier, J. H., Trustee, Muskogee	87
Mountain State Oil Co., Bartlesville	34,060
Mudge Oil Co., Pittsburgh, Pa.	17,194
Mul-Berry Oil Co., Cushing	5,103
Mullendore, Bessie, Cleveland	244
Mullendore, E. C., Cleveland	39
Mullendore, R. H., Hominy	106
Mullendore & Moore, Cleveland	378
Murphy Oil Co. of Pennsylvania, Philadelphia, Pa.	120
Murry, John Y., Tulsa	336
Mussellem, M. S., Muskogee	354
Muskogee Oil Corp., Muskogee	465
M. T. C. Oil & Gas Co., Coffeyville, Kansas	860
Myers, C. M., Tulsa	600
Myers Oil & Gas Co., Pittsburgh, Pa.	339
Myers & Twichell, Okmulgee	5,578
Naly, H. H., Cleveland	26
Nancy Oil Co., Sapulpa	497
National Oil & Development Co., Oklahoma City	10,489
National Union Oil & Gas Co., Blackwell	9,664
Neal, A. W., Bartlesville	89
Neubeck, W. L., Marietta, Ohio	245
Neustadt, Walter, Ardmore	7,269
New Haven Oil Co., Bartlesville	1,006
New Pocahontas Oil & Gas Co., Oklahoma City	178
Newton & Pinson, Coweta	450
New England Oil & Pipe Line Co., Boston, Mass.	35,665
New Years Oil & Gas Co., Kensington, Md.	334
Niece, Charles E., Tulsa	362
Night & Day Oil Co., Lawton	350
Ninety-Nine Oil Co., Tulsa, Okla.	609
Noble, E. T., Okmulgee	725
Noble Oil & Gas Co., Tulsa	10,070
Nolan, D. D., Chanute, Kans.	54
Nolan - Jackson, Sapulpa	1,025
Norman, Theo. A., Palmer, Mass.	141
Northland Oil Co., Kane, Pa.	563
Northrop Oil & Gas Co., Tulsa	396
Northrup, C. M., Tulsa	156
Norwood Oil Co., New York, N. Y.	11,583
Nowata Oil & Refining Co., Tulsa	32,171
Number One Oil Co., N. T. Gilbert and Julius M. Mayer, Receivers, Tulsa	3,320
Nyanza Refining Co., Oklahoma City.	1,672
Nyusa Oil Co., Okmulgee	1,085
Obins, W. G., and H. C. Weber, Bartlesville	12,144
O'Brien, P. J., Tulsa	1,137
Octo Oil Co., Bartlesville	429
Odell, C. C., Trustee, Morris	135
Offenbacher Petroleum Co., Tulsa	38
Oglesby, Robert, Tulsa	6,165
Ohio-Osage Oil Co., Hominy	4,425
O'Hornett, Carl J., Henryetta	921
Oil State Petroleum Co., Enid	27,416
Okeh Oil & Refining Co., Okmulgee.	211
Okla-Texas Refining Co., Grandfield.	21,290
Oklahoma Petroleum Syndicate, Okmulgee	1,340
Oklarado Oil Co., Okmulgee	718
Oklausa Oil Co., Jackson, Tenn.	180
Oklavania Oil Co., Tulsa	17,312
Okliana Oil Co., Tulsa	7,414
Okmulgee Petroleum Corporation, Okmulgee	465
Olean Petroleum Co., Bristow	205,778
Olson, A., Drumright	1,375
Oliphant Petroleum Co., N. T. Gilbert, Receiver, Tulsa	2,123
Omega Oil Corporation, Inc., Shreveport, La.	758
O'Neill Petroleum Co., Milwaukee, Wisconsin	130
O'Rourke, Ed, Tulsa	1,829
O'Rourke, E. W., Tulsa	1,829
O'Rourke, Tom, Tulsa	1,829
O'Rourk Oil Co., Tulsa	875
Osage-Allegheny Oil Co., Bartlesville	236
Osage-Arrow Oil Co., Ponca City	2,886
Osage Development Co., Bartlesville	9,155
Osage Producing & Refining Co., Bartlesville	3,900
Oswego Petroleum Co., Tulsa	2,257
Otstot, Ivan, Blackwell	88
Otstot, Ray, Blackwell	88
Otstot Dev. Co., Blackwell	6,471
Ottawa Oil Co., Wellsville, N. Y.	274
Overton, C. H., Estate, Tulsa	2,050
Owl Oil Co., Loco	14,774
Owsley, D. L., Tulsa	1,219
Page, Charles, Trustee, Tulsa	7,384
Page, Charles, C. W. Kingsbury and George Kinney, Sand Springs	1,681
Painter, J. W., Nowata	399
Painter & Stager, Nowata	85
Painter, Stager & Higgins, Nowata	926
Panama Oil & Gas Co., Muskogee	964
Panhandle Refining Co., Wichita Falls, Texas	573
Panther Oil & Development Co., Bartlesville	120
Papoose Oil Co., Tulsa	84,892

Company and Location—	Barrels
Papoose-Swindler, Tulsa	51,915
Paraffine Oil Co., Houston, Texas	9,625
Paragon Oil Co., Tulsa,	6,024
Parmenter, L. C., Muskogee	35
Parmenter, W. L., Lima, Ohio	1,965
Parmenter, W. L., No. 2, Lima, Ohio	350
Parrish, W. T., Jr., Coodys Bluff	130
Parrish Oil Co. and Reed, Nowata	2,702
Parsons, E. E., Okemah	920
Patterson, J. F., H. G. Fair and L. B. Norton, Okmulgee	10,338
Patterson & Swain, Bartlesville	226
Pattison Oil Co., Tulsa	6,667
Patton, H. H., Blackwell	828
Patton, W. P., Tulsa	433
Pattrell, E., Bartlesville	194
Patsy Oil Co., Ardmore	3,060
Pauline Oil & Gas Co., Oklahoma City	6,215
Pawnee Osage Oil & Gas Co., Tulsa	2,952
Paxton Oil & Gas Co. and Theodora Oil & Gas Co., Tulsa	214
Peer Oil Corporation, Tulsa	2,115
Pelham Petroleum Co., Tulsa	1,759
Penmar Oil & Gas Co., Okmulgee	8,812
Penn, William, Petroleum Co., Tulsa	151
Pennok Oil Corporation, Tulsa	192,905
Pennsylvania Oil Corporation, Warren, Pa.	338
Pennsylvania Oil & Lbr Corporation, Warren, Pa.	1,612
Penrod, Thompson et al, Okmulgee	1,652
Pensy Oil Corp., Tulsa	2,425
Perkins, J. J., Wichita Falls, Texas	2,217
Perrine, Irving & W. C. Kite, Oklahoma City	305
Peters, Chas. B., Tulsa	5,741
Peters-Leahy Oil Co., Tulsa	629
Peterson, S. F., Tulsa	307
Petroleum Co., The, Tulsa	7,454
Petroleum Co., The & M. H. Mosier, Tulsa	17,326
Petroleum Exploration, Sistersville, W. Va.	391
Peterson, S. F., Tulsa	144
Petroleum Extraction Co., New London, Conn.	1,016
Pettigrove, A. H., Dewey	1,005
Petty, C. S., Guthrie	89
Phillips Oil Co., Chelsea	1,488
Phillips Pet. Co., Bartlesville	2,173,098
Phillips, Waite Co., Tulsa	358,803
Phillips & Milam, Chelsea	14,762
Pilgrim Pet. Co., Tulsa	730
Pine, R. D., Okmulgee	425
Pine, R. D., Receiver, Okmulgee	327
Pine, W. B., Okmulgee	46,375
Pine, W. B., Trustee, Okmulgee	1,356
Pioneer Pet. Co. & Arria Oil & Gas Co., Tulsa	7,895
Plains Pet. Co., N. T. Gilbert & Julius M. Mayer, Receivers, Tulsa	9,508
Plover Drilling Co., Bartlesville	3,592
Plumb, A. O., Depew	842
Pluto Oil & Gas Co., Independence, Kansas	725
Plymouth Pet. Co., Tulsa	17,499
Pollyanna Oil & Gas Co., Bagley, Minn.	3,175
Pooler Creek Oil & Gas Co., Tulsa	715
Pope & Wilson, Inc., Oklahoma City	471
Posey Oil & Gas Co., Kansas City, Mo.	85
Post Oak Crude Oil & Gas Co., Logan, Iowa	991
Pouder & Pomeroy, Tulsa	2,195
Powell, W. S., Tulsa	237
Powell & Morrison, Trustees, Muskogee	97
Prairie Oil & Gas Co., Independence, Kans.	1,811,622
Prairie Oil & Gas Co., Trustee, W. M. Graham Oil & Gas Co., Independence, Kans.	2,723
Prescott & Snider, Kansas City, Mo.	162
Price, Ernest et al, Muskogee	287
Price, Ernest, Trustee, Muskogee	353
Price, Sylvan S., Tulsa	454
Price Oil Co., Pawhuska	8,198
Priddy, W. M., Ardmore	820
Prince, C. V., Okmulgee	333
Probst, Geo. Co. et al, Tulsa	244
Probst, Geo. C. & Jas. B. Morrison, Tulsa	3,022
Producers & Refiners Corp., Denver, Colo.	413,632
Pulaski Oil Co., Tulsa	64,099
Purdy Pet. Co., Tulsa	1,441
Pure Oil Co., The, Columbus, Ohio	806,609
Pyramid Oil Co., The, Winchester, Ky.	12,583
Quinlan, C. P., Tulsa	3,226
Quinlan, Felix, Tulsa	285
Rabbits Foot Oil Co., Davenport, Ia.	4,440
Ramsey Oil Co., Caney, Kans.	4,005
Ramsey, W. R. & W. E., Oklahoma City	107,305
Ranger Gulf Corp., Tulsa	10,272
Raycomo Oil & Gas Co., Orrick, Mo.	828
Rebold, John H., Okmulgee	377
Red Bank Oil Co., Tulsa	52,625
Redoak Oil Trust, Ardmore	4,459
Red, R. D., Tulsa	732
Reed, The Byron E. Oil & Gas Co., Guthrie	122
Reed & Harmon, Nowata	2,537
Reed, H. W. Agt., Nowata	640
Reesman, S. S., Tulsa	222
Regal Oil Co., Tulsa	17,143
Regal Oil Co., Pittsburgh, Pa.	1,703
Reinhardt, C. H., Chelsea	1,303
Reliance Oil Co., The, Houston, Texas	5,345
Reliance Oil Co. of Okla., Houston, Texas	6,616
Reno Oil Co. & E. J. Flynn, Sistersville, W. Va.	3,177
Reno Oil Co., P. B. & W. B. Flynn, Sistersville, W. Va.	182
Reno Oil Co., Sistersville, W. Va.	1,686
Republic Oil & Ref. Co., Rock Island, Ill.	329
Rex Oil & Gas Co., Winchester, Ky.	12,583
Reynolds, W. G., Okmulgee	1,099
Reynolds Oil & Gas Co., Independence, Kans	1,218
Reynolds, W. G., Receiver, Okmulgee	597
Rice, T. E. & Frank B ewster, Talala	519
Rice Creek Producing Co., Tulsa	469
Richards, A. H., Cleveland	1,369
Richards, Geo. C., Wynona	75
Richards, H. M., Cleveland	75
Riddle, Mabel L. Est., L. B. Riddle, Exec., Marietta, Ohio	50
Rielly, P. J., Delaware	116
Rigdon & Bruen, Kansas City, Mo.	4,758
Riley, J. R., Jr., Little Rock, Ark.	375
Riner, J. J. et al, Nowata	738
Ringer, J. J. Agt., Nowata	224
Ringling, John, Ardmore	3,445
Riverland Co., Tulsa	171,262
R. & M. Oil & Gas Co., Hominy	763
Roberts, C. M., Okmulgee	1,425
Robertson, Glass & Harmon, Nowata	1,026
Robinson, E. L. & Gibson-Zahniser, Tulsa	82,716
Robinson, Hubert, Trustee, H. I. Van Nostrant Interest, Claremore	1,137
Robson, H. J., Wichita, Kans.	225
Rockland Oil Co., Ardmore	59,870
Rogan Oil Co., Tulsa	2,008
Rood, Foster & Meloy, Bartlesville	1,502
Rose, J. E., Muskogee	63
Rose City Oil Co., Emporia, Kans.	579
Ross, E. A., Tulsa	36
Ross, C. O., Coffeyville, Kans.	1,957
Ross, Mrs. Alice, Tulsa	20
Ross, Mrs. Alice H., Execx., Tulsa	27
Roth, C. E., Independence, Kans.	4,031
Roumania Oil Co., Ardmore	175
Roxoline Pet. Co., Oklahoma City	770
Roxana Pet. Corp., St. Louis, Mo.	871,794
Ray, Tunie S., Okmulgee	475
Ruth Fuel Co., Bartlesville	2 816
Ryan Cons. Pet. Corp., Bartlesville.	15,322
Safety First Oil & Gas Co., Duncan.	4,083
Salt Creek Oil Co., Alluwe	975
Sammel, J. B., and W. B. Stewart et al, Robinson, Ill.	589
Sanders Oil & Gas Corp., Tulsa	1,395
Sankey Oil Co., Ft. Worth, Texas	96
Sapulpa Ref. Co., Denver, Colo.	18,671
Sargent, J. C., Tulsa	932
Savoy Oil Co., Tulsa	32,932
Schaffer, Danner & Snowden & McSweeney Co., New York, N. Y.	1,145
Schermerhorn-Ardmore Co., Minneapolis, Minn.	42,578
Schermerhorn Oil Co., Tulsa	9,955
Schermerhorn-Young Co., Minneapolis, Minn.	9,254
Schlegel & Shreve, Tulsa	375
Schmidt, Louis & Louisa K., Sapulpa	436
Schock, Jas. J., Okmulgee	340
Schock, J. J., Oil & Gas Co., Okmulgee	748
Schoenfeld, C. H., J. F. Milliken, Geo. C. & Karl M. Probst., Tulsa	502
Schoenfeld, & Milliken—C. H. Schoenfeld & Son, Bartlesville	3,775
Schonwald, Dave, Blackwell	5,275
Schonwald, Dave, Receiver Cozart Oil Co., Blackwell	3,699
Schroers, H. J., Vinita	285
Scott, Eura, Los Angeles, Calif.	2,386
Scott & Arrington, Walters	453
Scott, W. F., Kansas City, Mo.	219
Scruggs, Finley, San Antonio, Texas	121
Seagrave, F: S., Baxter Springs, Kan.	545
Selby, J. L., Muskogee	928
Selby Oil & Gas Co., Tulsa	35,701
Sellers, H. M., Receiver, Bartlesville	599
Sellers, H. M., Bartlesville	509
Sewell, O. A., Coweta	1,225
Shaffer-Mankin Oil Co., Tulsa	1,741
Shaffer, C. B., Trustee, Chicago, Ill.	466
Shaffer, C. B., Chicago, Ill.	1,048
Shaffer Oil & Ref. Co., Tulsa	388,696
Shaw, R., Coweta	105
Shear-Marcus Oil Co., Bradford, Pa.	1,029
Shearer Bros., Arkansas City, Kans.	475
Sheeders, Frank S., Pawhuska	346
Sheeders Oil & Gas Co., The, Pawhuska	1,834
Sheedy, Frank, Independence, Kansas	1,926
Sheets, E. H., Copan	463
Sheets, M. E. & A. M., Copan	463
Sheridan Oil Co., Tulsa	20,708
Sheridan Oil Co., Trustee, Tulsa	77
Shertzer Bros., Dewey	4,280
Short Grass Oil Co., Norton, Kans.	1,192
Shrewsbury, R. H., Est., Muskogee	300
Shufflin, M. B., Coffeyville, Kans.	1,209
Shulerin, Fischer, Tulsa	4,298
Shulthis, A. W., Estate, Independence, Kansas	1,350
Sidwell Drilling Co., Sapulpa	1,159
Sidwell, J. S., Tulsa	366
Siebler, Ben, Cincinnati, O.	216
Siggins-Shope & Co., Coffeyville, Kan.	359
Silurian Oil Co., St. Louis, Mo.	105,281
Simms Oil Co., Dallas, Texas	20,002
Simons, G. A., Okmulgee	15,525
Simons, I. D., Tulsa	8,495
Simpson-Fell Oil Co., Ardmore	31,465
Sinclair Oil & Gas Co., Tulsa	1,913,130
Sitrin Bros., Tulsa	6,963
Skeeter Oil & Gas Co., Garber	606
Skelly Oil Co., Tulsa	1,125,300
Skelly, W. G., Tulsa	1,342
Skelly Oil Co. for B. C. Wirck, Tulsa	65
Skelly Oil Co. for Security State Bank, Tulsa	131
Skelly Oil Co. for C. L. Hodson, Tulsa	65
Skelly Oil Co. for Basic Pet. Co., Tulsa	1,886
Skelly Oil Co. for M. Cassidy Heirs, Tulsa	306
Skelly Oil Co. for R. G. Smith, Tulsa	685
Skelly Oil Co. for F. J. Downey, Tulsa	685
Skelly Oil Co. for Arnold H. Goss, Tulsa	942
Skelly Oil Co. for A. T. Ferrell, Tulsa	942
Skelton, L. S., Estate, Okmulgee	8,725
Skelton-Moore Oil Co., Bartlesville	8,616
Slick Oil Co., Tulsa	1,650
Slick, T. B., Clarion, Pa.	908,131
Sloan, E. H., Tulsa	207
Sloan, J. W., Tulsa	83
Sloan, J. W., Trustee et al, Tulsa	4,927
Sloan, J. W., Realty Co., Tulsa	1,178
Slyman, Ellis, Bristow	325
Smedley, A. W., Tulsa	550
Smith & Daugherty, Nowata	174
Smith, Carl D., Tulsa	625
Smith, C. R., Est., Ardmore	8,522
Smith, C. T., Trustee, Okmulgee	2,343
Smith, C. T., Trustee, Okmulgee	955
Smith, D. M., Okmulgee	971
Smith, E. T. & Co., Bartlesville	474
Smith, G. J., Tulsa	24,848
Smith-Hanlon, Inc., Tulsa	2,132
Smith, J. T. & Eugene B., Sapulpa.	95
Smith-Lee Oil & Gas Co., Durant	1,884
Smith, Mrs. Mary S. & Marie S., Ardmore	22,954

Company and Location—	Barrels
Smith, Margaret L. & Chas. Robt., Jr., Ardmore	16,826
Smith, Parul W., Tulsa	596
Smith, P. C., Tulsa	1,824
Smith, Samuel Oil Co., Tulsa	338
Smith & Steinberger, Tulsa	2,255
Smith, T. K., Tulsa	4,044
Smith, Will H., Ardmore	6,937
Smoot, A. M., Mounds	122
Snowden-Danner et al, Tulsa	2,875
Snowden & McSweeney Co., New York, N. Y.	54,782
South Bend Oil Co., Tulsa	38,985
Southern Oil & Gas Co., Coffeyville, Kans.	2,367
Southwestern Oil Fields Co., Tulsa	49,485
Southwestern Oil, Gas & Coal Co., Independence, Kans.	2,111
Southwestern Pet. Co., Tulsa	419,608
Southwestern Pet. Co., P. H. Lods, Est., Chas. S. & Henry C. Lord, Tulsa	3,504
Southwestern Pet. Co., Paul Lovell Est., J. A. Lovell & W. T. Hastings, Tulsa	1,281
Spanger, C. W., Tulsa	1,085
Speary, C. F. & J. M. & John Mills, Marietta, Ohio	3,167
Speiers, A. J., Jenks	517
Spencer, Jas. T., Haskell	360
Sperata Oil Co., Bartlesville	680
Spinney, G. R., Tulsa	1,988
Sprague Oil Co., Ardmore	6,282
Spring Oil Co., Independence, Kans.	2,354
Stager, J. A., Nowata	1,044
Stager & Cornelius, Nowata	550
Stake Oil Co., Independence, Kans.	548
Staley & Wynne, Wichita Falls, Texas	2 322
Standish Oil Co., Bartlesville	3,993
Starr, John C., Vinita	2,100
Stauffer, M. T., Agt., Tulsa	103
Stebbins Oil & Gaso. Co., Tulsa	1,831
Stein, P. H. & M. S. Mussellem, Muskogee	526
Steinberger, C. A., Tulsa	1,680
Steinberger & Lucas, Skiatook	672
Stephens, C. S., Coffeyville, Kans.	231
Sterling Gas & Oil Co., Columbus, Ohio	683
Sterling Oil & Gas Co., Tulsa	23,332
Steuben Oil Co., Tulsa	965
Stewart, C. E., Independence, Kans.	480
Steyner Oil Co., Bartlesville	18,494
Stine, E. M., Tulsa	433
Stine, J. C., Tulsa	433
Stoner Bros., Tulsa	370
Stout, J. M., Trustee, Muskogee	1,009
Stout, W. E., Parkersburg, W. Va.	245
Studebaker, E. H., South Bend, Ind.	409
Studebaker, Ida, South Bend, Ind.	409
Straight, Preston, et al, Bartlesville	1,796
Stralem, C. I., Tulsa	661
Striker, John H., Tulsa	160
Strimple, J. A., Janesville, Wis.	323
Sullivan, C. T., Est., Kansas City, Mo.	82
Sullivan, E. J. & W. C. Dickey, Bartlesville	1,020
Sullivan, M. J., Kansas City, Mo.	84
Summers, Jack, Muskogee	2,485
Summit Oil Co. & Sand Fork Gas & Pet. Co., Bartlesville	926
Sunbeam Pet. Co., Tulsa	1,316
Sueprior Oil Corp., Lexington, Ky.	45,558
Suppes, G. B., R. E., & C. E., Tulsa	8,565
Sure Oil Corp., N. T. Gilbert, Recr., Tulsa	6,104
Surpass Pet. Co., Tulsa	1,002
Sutherland Pet. Co., Ardmore	13,834
Swain, Guy, Bartlesville	165
Swanson, John, Chanute, Kans., Fred Swanson, Est., Chanute, Kans. & Dan Kelly, Marietta, Ohio	1,703
Swastika Oil Corp., The, Tulsa	756
Swastika Oil Co., Copan	20
Sweeney, J. F., Estate, Tulsa	116
Sweeney, J. F. & Co., Tulsa	8,310
Swindler, Jas. A. & Son, Muskogee	7,538
Swoap, J. F., Oilton	645
Sykes, C. E., Ardmore	1,809
Taft Oil Co., Independence, Kans.	2,483
Tait, S. W., Montpelier, Ind.	222
Terrell Co., The, Terrell, Texas	2,887
Terwilliger, C. H., Tulsa	1,335
Test Oil Co., Bradford, Pa.	4,458
Texas Co., Tulsa	1,009,325
Texas-Okla. Inv. Co., Independence, Kans.	1,826
Texas-Pacific Coal & Oil Co., Thurber, Texas	87,263
Texokan Prod. Co., Coffeyville, Kans.	90
Thompson Oil & Gas Co., Tulsa	6,939
Thompson, R. D., Okmulgee	314
Thompson, E. L., Tulsa	595
Thompson, J. H., Okmulgee	335
Thompson, J. N., W. M. & Roy B., Tulsa	145
Thompson, J. N., Tulsa	837
Thompson & Jordan, Special, Okmulgee	1,347
Thompson, Milton, Cushing	278
Thompson, W. M. & Roy B. Tulsa	1,272
Thompson, Welder & Neal, Cleveland	3,236
Thurvan Oil Co., Bartlesville	769
Thurmond, T. A., Ardmore	3,060
Tidal Oil Co., Tulsa	438,256
Tidal Oil Co. for Cherokee-Warren Oil & Gas Co., Tulsa	2,946
Tidal-Osage Oil Co., Tulsa	281,365
Tibbens, C. G., Tulsa	333,358
Tiger Mountain Oil Co., Tulsa	5,875
Tiger Pet. Co., Tulsa	8,439
Tight, J. P., Arkansas City, Kans.	742
Tighe, J. P., L. L. Kroh & Ray Castle, Arkansas City, Kans.	88
Tighe-Osage Oil Corp., Arkansas City Kansas	65
Titus, C. W., Tulsa	405
Titus, C. W. et al, Tulsa	47,570
Todd, E. G., Cleveland	230
Toney, Mina H., St. Louis, Mo.	258
Trainer Oil & Gas Co., Bartlesville	667
Trainer, J. E. et al, Salem, W. Va.	240
Transcontinental Oil Co., Pittsburgh, Pa.	311,341
Travis, M. R., Tulsa	3,789
Travis, Rose R., Tulsa	162
Traywick, N. E., Okmulgee	156
Trefts, John C., New York, N. Y.	697
Troy Oil & Gas Co., Sapulpa	5,065
Troy, Josie E., Muskogee	70
Tyee Oil & Gas Co., Bartlesville	1,237
Tyler, D. M. et al, Dewey	2,568
Tyrrell, H. C., Tulsa	430
Tull Oil & Gas Co., Yale	587
Tuloma Oil Co., Tulsa	166
Tulsa Co., The, Oklahoma City	12,291
Turman Oil & Gas Co., Tulsa	54,757
Turner, T. E. & T. C., Mounds	4,798
Turner, R. M., Cushing	338
Twin State Oil Co., The, Tulsa	487,428
Umburn, Gilla, Weleetka	229
Umburn, W. L., Weleetka	1,887
Union Drilling Co., Tulsa	698
Una Lee Oil Co., Blackwell	1,743
Upp, O. E. & Vick Oil Co., Tulsa	1,942
Upp, Walker et al, Tulsa	593
Upland Oil Co., Tulsa	31
Urschel, C. F., Oklahoma City	6,176
Urschel, Flored S., Oklahoma City	6,176
U. S. Cities Corp., Tulsa	20,352
Vance, S. E., Tulsa	1,085
Van Dall Bros., Bartlesville	1,054
Vandervoort & Hoss, Piatt	941
Vandivort, W. M., Nowata	626
Van Eman, G. L., Jennings	5,740
Van Horn, E., Chelsea	157
Van Horn, R. V., Trustee, Clifton Forge, Va.	515
Van Moss Oil Co., Bartlesville	1,333
Vensel, Elliott & Vensel, Tulsa	2,669
Verland Oil & Gas Co., N. T. Gilbert & Julius M. Mayer, Receivers, Tulsa	6,077
Vicmar Oil Co., Tulsa	3,913
Viersen, A. A., Okmulgee	836
Vogler, A. F., Tulsa, J. A. Lightner, Boynton, & John Swanson, Chanute, Kansas	980
Vowell-Jackson, Sapulpa	7,018
Wagner, A. H., Winchester, Ky.	175
Wah-shoh-she Oil Co., Bartlesville	6,926
Waite, C. L., Los Angeles, Calif.	3,230
Waite, Fannie C., Los Angeles, Calif.	3,230
Walda Oil & Gas Co., Carlisle, Pa.	7,863
Walker, P. G., O. K. Eysenbach, Jr., Tulsa	428
Walker, W. L., Tulsa	75
Walker Valley Oil & Gas Co., Duncan	906
Walker Oil Co., Tulsa	2,206
Wall, F., Trustee, Bristow	600
Wall Oil Co., Tulsa	821
Wallace, F. H., Tulsa	390
Wallace, Harold, Bankrupt-Chas. S. Lynch, Recr., Ardmore	4,564
Walsh Oil Co., The, Tulsa	20
Ward Oil & Gas Co., Tulsa	3,401
Warner-Caldwell Oil Co., Titusville, Pa.	22,682
Warren Co., Bartlesville	2,187
Warren Oil Co., St. Louis, Mo.	333
Warwick, L. H., Trustee, Nowata	344
Watchorn, Robert, Okla. City	6,731
Watchorn Oil & Gas Co., Okla. City	193,811
Watkins-McPherson Drilling Co., Healdton	871
Wayne Oil Co., Tulsa	2,363
Weart, J. Foss, Bartlesville	82
Webb, R. N., Tulsa	238
Weber, Howard No. 5, Bartlesville	2,105
Weber, Obins & Beattie, Bartlesville	625
Webster, G. W., Tulsa	4,823
Welch, F. P., Rock Island, Ill	154
Welch Gas & Oil Co., Stillwater	420
Welder, Myrtle, Est., Cleveland	83
Wells, N. D., Tulsa	621
Wellsville Oil Co., Wellsville, N. Y.	2,005
Welsh, A. L., Oklahoma City	9,875
Welsh, J. D., Kansas City, Mo.	564
Welsh, M. P., John Welsh & C. T. Daugherty, Nowata	330
Wentz Oil Corp., Ponca City	913,532
Wertzberger, D. D., Tulsa	373
West, J. H., Tulsa	6,788
Westerly Oil Co., Bartlesville	24,414
Western American Oil Co., Bartlesville	1,540
Western Natural Gas Co., Tulsa	3,875
Western Oil Corp., Tulsa	9,853
Western States Oil & Land Co., Casper, Wyo.	1,900
Westheimer & Daube, Ardmore	159,660
Westland Oil Corp., Tulsa	6,233
Wettack, Maud, Nowata	295
White Eagle Oil & Ref. Co., Kansas City, Mo.	27,154
Whitehill, B. F., Tulsa	1,962
Whitehill, Howard J., Tulsa	148
Whitehill & Glass, Tulsa	972
Whitehill, Donovan & Whitehill, Tulsa	875
Whitehill, Donovan Hayden & Whitehill, Tulsa	834
Whitehill & Smith, Tulsa	1,523
Whiteside, R. B., Duluth, Minn.	194
Whittier, M. H., Tulsa	803
Wick Pet. Co., Muskogee	266
Wickett, F. H., Shreveport, La.	3,456
Wickett, K. L., Tulsa	550
Wigton, B. L., Okmulgee	1,075
Wigton & Long, Okmulgee	58,100
Wilcox, H. E., Indianapolis, Ind.	64
Wilcox, H. F.-Pampa Oil Co., Tulsa	3,929
Wilcox, H. F., Oil & Gas Co., Tulsa	335,030
Wilcox, H. G., & E. M. Oswalt, Tulsa	95
Wilcox, Oswalt & Wilcox, Indianapolis, Ind.	486
Wilhite, A., Kansas City, Mo.	80
Wilhoit, Ethel J., Execx., & R. M. Jones, Trustee, Kansas City, Mo.	2,449
Wilhoit, J. C., No. 2 Acct., Kansas City, Mo.	1,440
Williamson, Sam F., Trustee, Nowata	605
Wilson, Hiram C., Tulsa	12,923
Wilson, M. A., Dewey	997
Windsor Oil & Gas Co., Okmulgee	108,154
Wineland Oil Co., Boynton	626
Winemiller, J. H., Tulsa	226
Winona Oil Co. of Dela., Tulsa	55,012
Winters, M., Independence, Kans.	512
Winters Oil Co., Bradford, Pa.	1,151
Wise, W. A., Sapulpa	76
Wise & Jackson, Sapulpa	9,340
Wiser Oil Co., Bartlesville	68,670
Withington, Margaret M., Marietta, Ohio	375
Withington Oil Co., Bartlesville	1,516
Wittmer Property Trustees, Pittsburgh, Pa.	72,363
Wolfe, F., Bristow	118
Wolfe Oil Corp., Bristow	10,532
Wolverine Pet. Corp., St. Louis, Mo.	372,960
Womack, Geo. F., Duncan	875
Wood, T. J., Tulsa	7,104
Wood Oil Co., Tulsa	25,321
Woodard, Geo. E., Nowata	1,020
Woodard, Burkett & Woodard, Nowata	1,176
Woodard & Woodard, Nowata	766
Wright, J. H., Sapulpa	5,709
Wright, W. T., Tulsa	213
Wrightsman Pet. Co., Tulsa	4,825
Wyrick, J. B., Duncan	362
Young, Geo. L., Dewey	519
Zahn & Crawford, Tulsa	2,218
Zelma Oil Co., Tulsa	350
Zohar Oil Co., Tulsa	2,305
Zola Oil Co., Tulsa	22,500

ANNOUNCING CHANGE OF OWNERSHIP AND MANAGEMENT OF REED ROLLER BIT COMPANY

To My Friends:

The Reed Roller Bit Company was incorporated in 1919 by Niels Esperson and C. E. Reed. The business, thanks to our friends, prospered amazingly.

Mr. Esperson died in October, 1922. His widow inherited his interests and has desired to close out her holdings. Under financial pressure I was deprived of stock control in April, 1924, and under date of December 31, 1924, resigned management. I have now accepted a proposal and sold my entire stockholdings for cash, the re-assignment of certain patent rights, and other considerations, among which are:

"Release from all liability in connection with past and pending litigation involving patent or trade rights of the Reed Roller Bit Company of every name and nature."

"A full and complete release of all money demands and claims of every kind of Mrs. Esperson, the Niels Esperson Estate, and the Reed Roller Bit Company against C. E. Reed."

The executed contract of sale further provides, "that C. E. Reed is free and clear of any obligations to or claims of the said parties (Mrs. Niels Esperson, the Niels Esperson Estate, and the Reed Roller Bit Company) as to his activities or employment and may engage in any line or take employment without interference, claims, objections, or litigation by Mrs. Niels Esperson, the Niels Esperson Estate, or the Reed Roller Bit Company; provided, however, that this shall not be construed as a license to C. E. Reed to engage in infringement of any of the patents owned by the Reed Roller Bit Company."

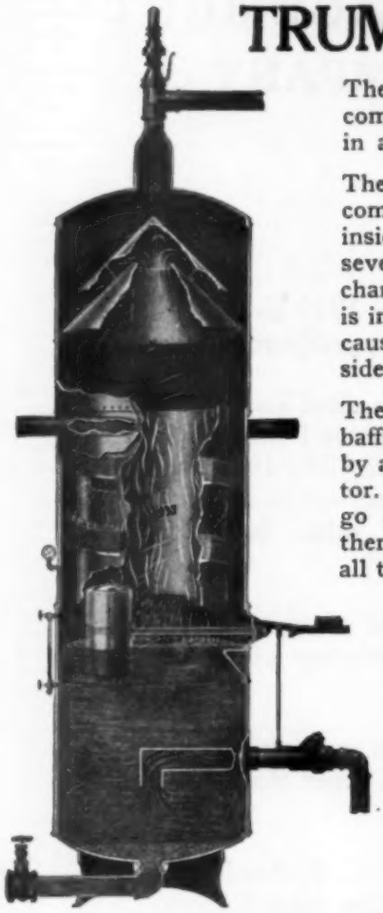
My new inventions, plans, and connections of interest to the trade will be announced in due course. I shall continue active in the trade.

I am deeply grateful to the industry and the rotary drilling fraternity, whose support has made my inventions famous and known wherever rotary drilling is done and thanking my friends and the trade that have made my success possible, I am,

Gratefully,

C. E. REED,
P. O. Box 353
Houston, Texas

HERE'S HOW THE TRUMBLE WORKS:



The gas and oil piped from the well comes into the Trumble separator in a tangent.

The centrifugal baffle takes the incoming oil and gas around the entire inside surface of the separator several times and gives the gas a chance to separate from the oil. It is impossible for the oil to drop and cause foaming as it clings to the sidewalls.

The gas goes back up through the baffle and is kept from channeling by a baffle in the top of the separator. It is impossible for any gas to go out through the oil outlet as there is a seal over the oil outlet at all times.

The centrifugal method of separation is the best method ever used, the same as that used in separating gasoline and water. The floats are non-collapsible as the internal and external pressures are equalized, therefore, the SLIDE and SAFE valves have to work, as they operate automatically with the float.

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about 3000 feet with water. At this time the crew is trying to set 6⅝ casing at 3453 feet. Should this test develop into a producing well, it would mean a new pool considerably removed from any other production in Cooke County.

Baylor County led in wildcat completions for North Texas, with four failures. Two dry holes in Throckmorton County, and one gas well completed the list for the district.

In the Panhandle area, the chief interest was in new work started. Several locations were announced, all of them in Hutchinson County. F. D. Gibson is to drill his No. 1 Whittenberg, 860 feet north and 620 feet east of the southwest corner, survey 62, H. & T. C., block 46. Currie Brothers and J. R. Phillips announce that they will begin work on No. 1 H. E. Smith, 330 feet south and 350 feet west of the northeast corner of the southeast one-fourth, survey 14, M. & C. block. Traveler's Oil Company has location for No. 1 Kingsland, 495 feet north and 617 feet west of the southeast corner of the southwest one-fourth of the northeast one-fourth, survey 6, M. & C. block.

These wells are located in a part of Hutchinson County where a great deal of prospecting work is now going on, and where commercial producers have been found. The general section, however, is undergoing thorough testing for both oil and gas.

Work in the Central West Texas area brought no new developments, but a good deal of new work is getting under way especially in the vicinity of the Marland-Humble producer in Crockett County, and at Big Lake. In Crockett County, the Humble Oil and Refining Company is building two rigs; Marland has locations made for four wells; the Gulf Production Company is building a rig, and one or two independent operators are getting ready to start wells. The discovery well is flowing about 25 barrels daily.

In the Big Lake vicinity, the Texon Oil and Land Company's University 4, Group 2, is drilling below 2612 feet, after having been delayed for more than two weeks on account of a bad gas blow-out.

There is still rumor about the Trojan Oil Company's No. 1 Utterback, located in Comanche County. Various reports have been made concerning this test, but upon being traced and checked, all of them have ended in little of importance, and the latest information is that there is little probability of the well making a producer. After deepening from 3528 feet to 3530 feet, there was no change in the well, and very little gas is now showing above the casinghead. The well swabbed about 40 barrels one day last week, and the hole filled up with oil about 2000 feet.

Acreage deals throughout the entire section are slow and few of the companies are making effort to get new land.

There's Less of This With Agathon Alloy Steel Bits

Fewer pullings, fewer dressings, fewer delays follow the use of bits made of Agathon Steels. Users state such bits triple the actual drilling time at bottom of holes over that of bits made of other steel. Spend more time drilling—get down to oil faster and more economically with Agathon Steel bits. We do not make bits. We furnish the steel from which they are made. Insist that your next order of bits be made of Agathon Steel. Then note the difference—the savings. Ask for a copy of our handbook and the assistance of our metallurgists. Both are furnished without charge.

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known the world over for its resistance to vibration and corrosion. Yes, Byers still puddles iron the way it was done a century ago, faithfully adhering to the highest standard of the iron making craft. From this iron, Byers tubing is lapwelded, threaded and finished with the utmost care, and with the aid of the most improved modern equipment and machinery.

Small wonder Byers tubing stands up! The tough fibrous metal withstands vibration and shock for a period of many years. Corrosion is effectively resisted by the millions of tiny slag filaments incorporated in the metal. The weld, on the average, has been shown to be fully as strong as the other parts of the pipe wall. So its record in the oil fields is one of lasting satisfaction.

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Arkansas Deep Sand Making 155,000 Bbls.

Graves sand boom approaching end and Blossom sand campaign has failed to reach the spectacular

El Dorado, Ark.—Arkansas operators are going about with long faces, expecting a reduction in their crude values to follow the cuts made during the last few days in Pennsylvania, the Gulf Coast, and the Mid-Continent. Although several good wells were completed last week at Smackover, the Graves sand boom is approaching its end; and the Blossom sand campaign has, as yet, failed to attain spectacular proportions. According to the accompanying tabulation, which shows data gathered in a recent survey of deep sand operations, the Blossom sand is now yielding approximately 17,620 barrels of oil per day from forty wells, or an average of 440 barrels per well per day. The Graves sand, which has proven so fertile, is accounting for 137,560 barrels per day from 443 producing wells, or an average of 310 barrels per well per day. To date, 608 wells have bene completed in the Graves sand; but, when this survey was made, 165 of them were dead, awaiting the installation of pumping rigs.

The Blossom sand is still an unknown quantity at Smackover. One or two real gushers have been completed at the 2600-foot horizon; but a large number of gassers, blow-outs, craters, and fishing jobs have marked the campaign of drilling to that level. One or two large companies, having experienced so much difficulty in drilling safely through the Nacatoch and Graves sand, have developed a policy of setting eight-inch casing through these formations, followed by a string of six-inch cemented just above the Blossom sand. This method increases the cost of a well by several thousand dollars, but has proven safe and successful so far. There are those who believe that the problem of the Blossom sand is merely mechanical in its nature, and that as soon as drillers learn just how to finish wells at that depth, an important volume of production may be expected from the third sand.

Deep drilling having been so richly rewarded at Smackover, where three different sands are now producing oil in commercial quantities, a number of operators are now engaged in prospecting at still deeper levels. The following tabulation shows the status of a number of the more important deep tests now in progress in and near the Smackover field:

Ouachita County

Marine Oil Co.'s Umstead 1, NE¼ Sec. 5-16-15, drilling at 2770 feet. Ohio Oil Co.'s Lewis 5, NWc NE¼ SW¼ Sec. 26-16-15, drilling at 3010 feet.

Union County

Barbore et al's Houston 1, SEc SE¼ NE¼ of Sec. 12-16-16, coring at 2725 feet. Federal Pet. Co.'s Lawton A-10, NWc NW¼ SW¼ Sec. 10-16-15, drilling at 2715 feet. Gulf Refining Co.'s Howard 1, NEc NE¼ NW¼ Sec. 13-16-16, coring at 2715 feet. Magnolia Pet. Co.'s Chandler 1, 4-19-14, NWc NW¼ NE¼, set 6⅝-inch casing at 3134 feet. Mazda Oil Corp.'s Lawton R-4, SEc NE¼ SW¼ Sec. 10-16-15, drilling at 3000 feet. Stock et al's Ezell 1, 18-17-14, SEc SW¼ NE¼, Sec. 18-17-14, El Dorado East field, drilling plug at 2866 feet.

The Simms Oil Company brought in a 4000-barrel well last week on its Berg "C" Lease in section 32-15-15, Ouachita County. It was finished in the Graves sand at a total depth of 2414 feet, and is making 8 percent b.s. Bailey & Murray's Rhoten B-4, in the same section, is also listed as a 4000-barrel well at a total depth of 2412 feet.

SMACKOVER DISTRICT

Blossom Sand Production

Bailey & Murray	3,500
Crawford & Sebastian	3,100
The Texas Company	2,750
Sakaba Oil Corporation	1,750
Simms Oil Company	1,300
Houston Oil Company of Texas	1,100
Texas Pacific Coal & Oil Company	575
J. H. Meek, Receiver	565
J. W. Clark	540
Gulf Refining Company	530
Phillips Petroleum Company	510
Humble Oil & Refining Company	425
Empire Gas & Fuel Company	390
Lion Oil & Refining Company	135
Page Oil Corporation	125
Federal Oil Marketing Corporation	85
O. G. Murphy	70
Laurel Oil & Gas Company	70
Standard Oil Company	65
Mazda Oil Corporation	35
Total from third sand	17,620

Graves Sand Production

Gulf Refining Company	15,600
Lion Oil & Refining Company	10,890
Standard Oil Company	10,700
The Texas Company	9,700
Humble Oil & Refining Company	8,150
Pure Oil Company	4,650
Southern Crude Oil Purchasing Company	4,040
Unity Petroleum Company	4,035
Woodley Petroleum Company	3,665
Arkansas Fuel Oil Company	3,540
Sunny Jim Oil Company	3,360
Federal Petroleum Company	3,315
Marine Oil Company	3,125
Ohio Oil Company	3,030
Sun Company	3,025
Natural Gas & Fuel Corporation	3,000
Roxana Petroleum Corporation	2,800
Amerada Petroleum Corporation	2,735
D. N. Stewart et al	2,250
O. G. Murphy	2,150
Shreveport Oil Corporation	1,940
Phillips Petroleum Company	1,825
Simms Oil Company	1,760
United Central Oil Corporation	1,740
Imperial Oil & Gas Company	1,495
Leon et al	1,425
Staves et al	1,400
Mazda Oil Corporation	1,300
Wingfield et al	1,270
J. W. Clark	1,175
McCorkle et al	975
Penguin Oil Company	975
Crawford & Sebastian	975
Lyall et al	960
Ray Drilling Company	950
Federal Oil Marketing Corporation	940
Thurman et al	900
El Dorado Union Oil Company	870
McFarland & Hollifield	805
Keen & Woolf	800
O. L. Hickman	700
Clark & Melat	645
Coates & Sowell	600
Invader Oil Company	575
Sid Umstead	575
Sinclair Oil Company	555
Magnolia Petroleum Company	535
Marr & Wood Syndicate	525
Ownewood Oil Corporation	490
Healy Consolidated Oil Corporation	470
Marr Oil Corporation	435
Sam Cook	415
A. H. Ramage	365
A. B. Jones	350
Kinnebrew & Simpson	300
C. W. White	275
Estes et al	250
Nye Wilson	245
Richardson et al	225
Houston Oil Company of Texas	205
McMurray et al	200
Sutton et al	150
E. M. Jones	125
Enson Brothers	60
Wilroy et al	50
Total from second sand	137,560
Total, "Deep Sand" Production	155,180

Active in Heavy Oil Region

Tampico, Tamps.—There is no cessation of drilling activity in the heavy oil region east of Tampico, particularly through Cacalilao, Chapacao, East and West Maguabes, and the original Pamico field. During the week ending August 4, 17 new wells were spudded by 12 companies. The Mexican Petroleum Corporation (Pan American Eastern) and the Mexican Seaboard spudded three each, while the Southern Pacific, Freeport Sulphur, Marland Oil, Mexican Gulf, Sinclair National Oil Company, Thomas et al, and the Tampico Banking Company, each spudded one new well.

15 New Wells in Tampico District

Tampico, Tamps.—Permits for the drilling of 15 wells in the Tampico district were granted by the Department of Industry, Commerce and Labor, in the week ending August 12. The permits were granted to 11 different companies and cover 12 operations in the heavy oil district; two in the light oil district, and an additional wildcat in Naranjo, State of San Luis Potosi, to be drilled by the Mexican Seaboard Oil Company, which also will go ahead on another well in Cacalilao. The Pan American Eastern received the greatest number of permits, including two in Tierra Blanca for the Huasteca Petroleum Company, and three in La Dicha, one in Mendez, one in Chapacao, and one in Chijol, granted in the name of the Mexican Petroleum Corporation. The Gulf Oil Company will start three new wells in Chapacao and one in Llano del Silva, while one permit each was granted to the National Railways of Mexico, Federal Zone property, Tamboyoche; New England, Pazzi; Itamex, Tampuche and F. Peraldi, on Federal Zone property in Herradura.

Mexican Seaboard Has Big Panuco District Campaign

Tampico, Tamps.—One of the most active drilling programs ever undertaken by an oil company in Mexico has just been started by the Mexican Seaboard Oil Company in the Panuco district, where it is scheduled to complete 58 additional wells between August 1 and December 31, 1925.

The company has been the heaviest operator in Mexico this year, having completed approximately 83 wells from January 1 to August 1, and with the exception of the Pan American Eastern, is the only company with production of any size able to maintain its level of withdrawals within the past several months.

The Mexican Seaboard is primarily concerned in maintaining a contract with the Standard Oil Company of New Jersey, which calls for daily deliveries, if possible, of 30,000 barrels to a field station at Tancoco, Veracruz. This contract, spreading over a period of three years, and now about half completed, calls for a total delivery of about 32,000,000 barrels of oil Thus far the Hammond Company has been enabled to keep ahead of its schedule, and it is the belief of company officials that the new drilling program should double its present daily production of 35,000 barrels daily.

While 50 of these wells to be drilled are to be in Cacalilalo, the scene of nearly all present production, some wildcatting will be continued, in that four additional wells are scheduled in Hacienda Naranjo, San Luis Potosi; one more in Tanceme in the Papantla Valley, more than 100 kilometers from the nearest production, and another test in a heretofore untried section of Toteco, as well as two wells in Corcovado, which is north of Cacalilao.

Large Gasser Extends Carolina-Texas Area

Laredo, Texas.—The second largest gas well in this entire area was completed the latter part of last week by the Morgan, O'Hern and Putman interest, known as the M. O. P. Oil Company. Casing was set at the depth of 2080 feet, the sand being encountered at 2090-2100 feet. The bailer was run only a few times when the well cleaned itself with a mighty roar. The well gauged 80,000,000 cubic feet daily. This gasser is located on the northeastern corner of survey 336 Webb County and extends the gas area of the Carolina-Texas field approximately three-quarters of a mile to the east.

Two small producers were added to the Henne, Winch & Fariss pool, Jim Hogg County by the completions of O. W. Killam No. 11, located on block 12, survey 256 for 100 barrels, and B. Alexander No. 1 located on block A-1 survey 580 El Peyote grant, for 60 barrels.

A large purchase was made during the past week by the Associated Oil Company who took over the 40 acres with seven producing oil wells owned by the Cintex Petroleum Company, the consideration being $80,000. Forty acres are located in block 50, survey 592 Los Ojuelos grant, Mid Ojuelos pool, Webb County, and are considered in one of the best producing areas of that pool. The wells are comparatively young, having produced to date 165,000 barrels. The average monthly run from the lease is about 7000 barrels.

July Exports Mexican Oil Smallest Since American Companies Became Active

Tampico. — Exports of light and heavy crude, topped crude and distillates from Mexico for July, totaling 8,440,417 barrels, were a decrease of 473,508 barrels from the amount shipped in June, when 8,913,925 barrels were loaded into tankers at terminals at Tampico or at Tuxpam, Veracruz. These exports were the smallest in any month since American companies became active shippers in the republic, and reflect the continued decrease in production.

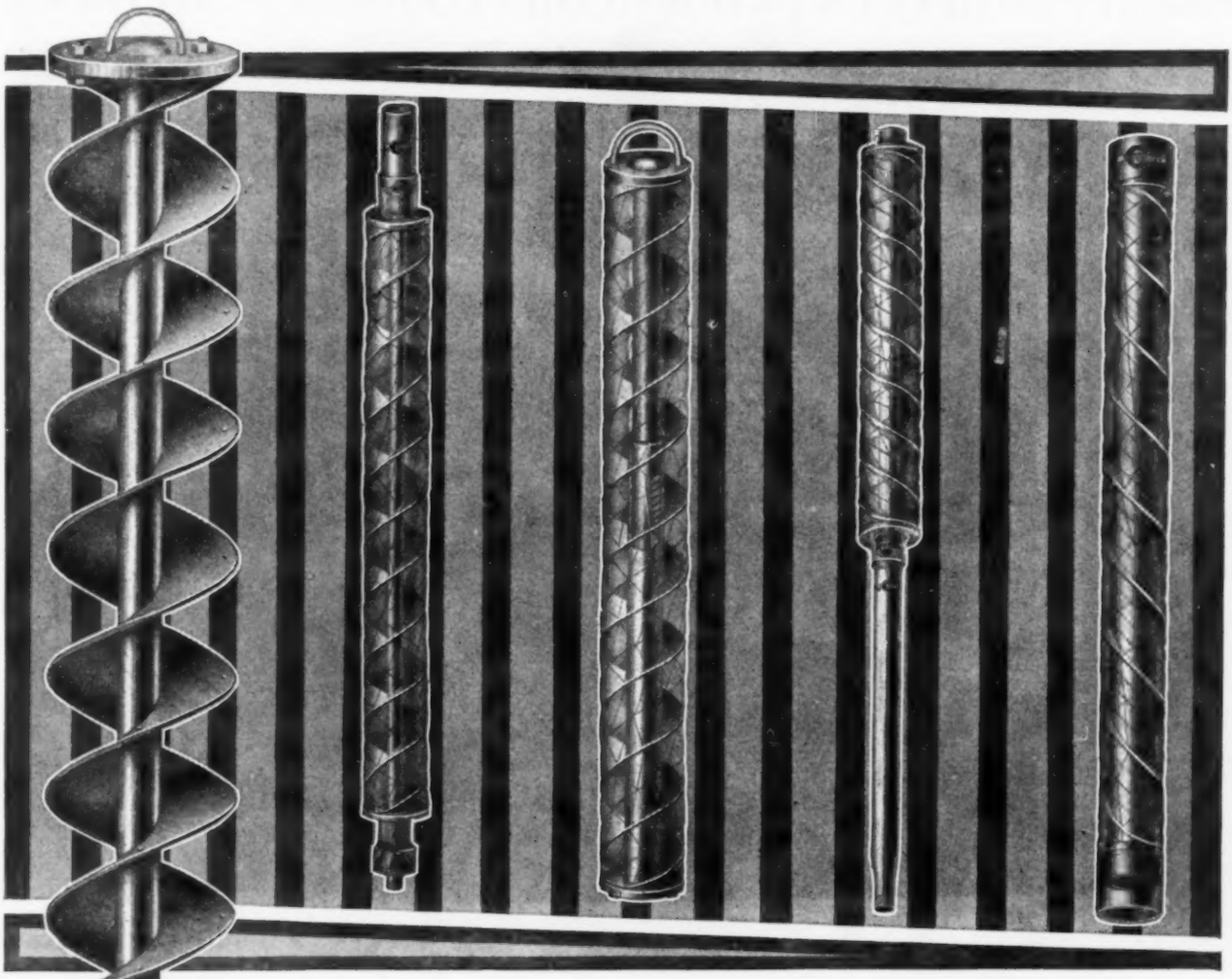
Exports of the Huasteca Petroleum Company (Pan American Eastern), totaling 2,377,140 barrels, were not only a decrease of 582,946 barrels from the month previous, but the smallest shipments made by the company since November, 1924. However, the Pan American Eastern is the only company operating in Mexico whose decline in exports is not due to a decrease in actual or potential production, as the company has this past month decreased is daily withdrawals 50,000 barrels due to lesser needs of Mexican crude. Practically all of its shipments went to the United States, with mixed topped oil comprising 60 per cent of the total, followed by light topped oil amounting to 413,000 barrels; 273,000 barrels of gasoline and the balance in either heavy crude or crude kerosene. In addition to shipments out of Mexico, the Huasteca sent to its sales department in Mexico City for retail distribution into the interior, 27,390 liters of light topped oil, 4,605,710 liters of refined gasoline, 446,276 liters of refined kerosene and 352,006 liters of crude kerosene.

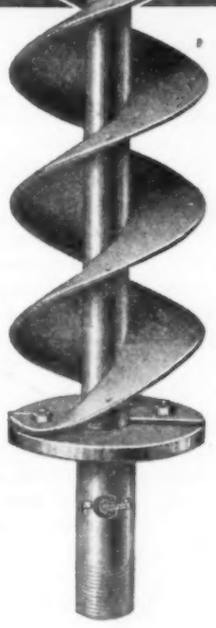
The Transcontinental Petroleum Company (Standard of New Jersey) showed a slight decrease in July shipments from June, while the Dutch Shell dropped 538,662 barrels, with slight decreases on the part of the Southern Pacific, The Texas Company of Mexico, Empire Gas & Fuel Company, and the Pierce Oil Corporation.

The only appreciable gains in exports made were those of the Mexican Eagle, which shipped 1,288,790 barrels, as against 941,104 barrels; the Mexican Sinclair, which increased 113,181 barrels, and the Mexican Gulf, which loaded 112,083 more barrels in July than in June. The Mexican Oil Exporters Company, shipping Federal Zone oil which all other companies refuse to handle, loaded three cargoes totaling 154,639 barrels, a good share of which came from either the El Sol Oil Company or wells of the National Railways of Mexico.

Exports by companies for July, together with June totals showing the increase or decrease, follow:

	July	June	Light Fig. Increase Heavy Fig. Decrease
Pan Amer. East'n.	2,377,140	2,960,086	**582,946**
Transcontinental	2,069,402	2,096,306	**26,904**
Mexican Eagle	1,288,790	941,104	**347,686**
Dutch Shell	946,679	1,485,341	**538,662**
Mexican Sinclair	519,976	406,795	**113,181**
Southern Pacific	310,654	368,664	**58,010**
Mexican Gulf	256,468	144,385	**112,083**
Texas	175,027	220,292	**45,265**
Mex. Oil Exporters	154,639	32,035	**122,604**
Panuco Boston	80,865	69,412	**11,453**
New England	64,440	.....	**64,440**
Unity	61,282	39,707	**21,575**
Empire G. & Fuel.	56,036	100,771	**44,735**
Interocean	45,814	.....	**45,814**
Pierce	33,205	49,027	**15,822**
Grand totals	8,440,417	8,913,925	**473,508**





RELIABLE PLUGS AND PACKERS

STANDARD BOTTOM WATER PLUG. For setting 3 feet or more off bottom. Can be set as much as 40 feet off bottom, with 3-inch anchor pipe, and used as bridge. Patented.

WASH-DOWN BOTTOM WATER PLUG. Permits pumping of water through plug to flush bottom of well, before setting. Patented.

COLLAPSIBLE CORE PLUG. Designed for setting on bottom of well, allowing no clearance. Core telescopes on itself. Patented.

SPIRAL TUBING PACKER. Will not stick. Provides tight, uniform pack but is easily removed and can be used again and again. Patented.

SPIRAL CASING PACKER. Our patented spiral construction applied to casing packers. The first casing packer to give uniformly satisfactory results. Patented.

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GUIBERSON

BETTER BE SAFE THAN SORRY

Future Supply Dependent on Production Methods

(Continued from page 30)

which were nearing exhaustion as flowing or pumping wells, is as high as 10,000 to 12,000 barrels per acre. This is a much larger yield than other operators are securing and above the average that might be expected. From leases held by the Tide Water Oil Co., Mr. Frank Haskell estimates, on the basis of results already obtained, that 3300 barrels per acre will be recovered by flooding. All past production from these lands is estimated at 2600 barrels per acre. The amount of oil that will be recovered in the Bradford field by flooding with water—a process legalized so recently as 1920—is now estimated at 350,000,000 barrels. The Bradford sands, at points where analysis of cores was made by Mr. A. F. Melcher of the United States Bureau of Mines, are believed to have contained originally oil to the extent of 40,000 barrels per acre. During fifty years of pumping and a relatively brief period of flooding, about 10,000 barrels per acre were recovered, leaving 30,000 barrels per acre still in the sand. From the result of these experiments Mr. David White of the United States Geological Survey, speaking before the Northwestern Pennsylvania Oil Producers' Association on October 28, 1924, estimated that two billion, five hundred million (2,500,000,000) barrels of oil still remain in the Bradford sands—a quantity almost a third as great as all the oil produced by the wells of the United States since 1859. The inference as to the oil content of new and prolific fields in other parts of the country can not be ignored.

The cost of flooding is large, and the system can not be operated economically on low-priced oil or land giving a meager yield.

Of General Application

It is held by some that the Bradford sands are unique, and that flooding can not be applied successfully in most other sections of the country. The consensus of expert opinion is that the greater number of oil sands in the United States will respond to flooding in a satisfactory manner. Legislation will have to be passed by the various State legislatures before the system can be generally introduced. New York and Pennsylvania are now the only states where flooding of an oil sand is legalized. In areas where flooding is not practicable, because of the composition of the sands or the lack of water, the use of compressed air has been shown to give most satisfactory returns, while unwatering and mining—the latter as practiced in Alsace—will also add greatly to the recovery of oil from areas that no longer produce by flowing or pumping. The general result of the application of these processes to oil production, it is estimated, will be the recovery from wells that have about reached the point of abandonment under the pumping system, and in which a fair pay thickness of highly saturated sand still exists, of "billions of barrels" of oil that would have been lost to industry and the world's wealth, but for the enterprise and efficiency of the petroleum producers of the United States.

A "Billion Acre" Reserve

The Committee on Supply stresses the fact that the greatest of the national petroleum reserves consists of the one billion, one hundred million (1,100,000,000) acres of as yet unexplored and unproven land underlaid with sedimentary rocks that await the drill. Much evidence of a concrete sort is given that deep drilling in proven fields, and vigorous exploration in the "billion acre reserve," will provide vast quantities of oil.

The element of uncertainty is not the existence of petroleum in the deeper levels of already proven areas and in the billion-acre tract still to be tested, but whether the price of crude oil will remain sufficiently remunerative to warrant the investment of time and money in finding new oil fields. "Distress" crude must inevitably lessen the amount of exploration in progress at any particular time. Increasing prices, on the other hand, will bring their own corrective, as in the production of wheat or any other standard commodity, by stimulating production. And in the oil business from the very beginning the stimulation of production has depended far more upon the wildcatter in the field than upon any increase in volume that lessees of proven oil areas could secure from producing fields. Had it not been for a remarkable increase in the average initial flow of wells brought in by exploration during the past fifteen years, the increase of demand during that period, because of the tremendous development of the automotive industry, could not have been met.

Some of the more striking statements of the Committee concerning future possibilities are as follows:

Probable New Fields

"The area in which new fields may be expected is of the same general character as the area which has produced and is producing our crude oil supply, and it has been tested much less thoroughly than has usually been necessary in the past for the development of new oil fields. With this great area to be explored, and with increased efficiency of exploration methods, additional oil fields will certainly be discovered.

Oil in Lower Sands

"In every one of the producing areas of the United States oil will very probably be obtained in sands other than those now producing. Even in the Eastern fields, including the Appalachian District, where exploration has been active for more than half a century, it is reasonable to hope that new production will develop from some of the tests that are being drilled to deeper sands. In the Mid-Continent area, in Texas and the Gulf Coast, in the Rocky Mountain region, and in California, production is to be expected in many fields in each of these subdivisions of the nation's petroleum reserves from sands other than those now yielding our oil."

Scientific Apparatus for Discovery of Oil

"The most notable progress in the application of new methods of discovery has been made in the past few years in the Gulf Coast area of Texas and Louisiana, where the salt dome type of structure governs oil accumulation. Geophysical methods have been applied with notable success and it now appears that these methods will completely succeed the older methods of locating these structures. The discovery of three domes—Nash, Orchard and Long Point—in the Texas Gulf Coast region in 1924 by means of the torsion balance and the seismograph, is the first result of exploration by geophysical methods. . . . With the thoughts of the various research departments turned toward mechanical means of locating underground structures, it is not beyond the realm of possibility that scientific apparatus will be perfected that will indicate the actual presence of oil."

Part II of the Supply Report deals with the huge deposits of oil shale, coal and lignites as a source of liquid fuel. The report indicates a virtually unlimited supply available, a total of four trillion (4,000,000,000,000) tons, with an estimated yield of liquid products of seven hundred billion (700,000,000,000) barrels, and of motor fuel one hundred and thirty-nine billion (139,000,000,000) barrels.

The Committee on Supply directs attention to the fact that these shale reserves are of special interest to the nation as a guarantee that oil fuel for the navy will not fail. The report states that:

"The naval oil reserves were created in 1916, and from incomplete information it was estimated that each reserve was capable of producing somewhere

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It is true that Jarecki Valves do everything that perfect valves should do. They do open easily, shut tightly, stand up under the worst sort of abuse, and give durability records that surprise even us at times.

And yet we claim no special credit. For 73 years we have been manufacturing, testing, analyzing and improving. Naturally ours is a finished product. Naturally, we know what materials give best service under given conditions and know how to provide these materials. Naturally, Jarecki Valve service is efficient service.

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near 500,000,000 barrels of oil. Subsequent studies by the United States Geological Survey and property owners in the immediate vicinity have proven that the Colorado reserve alone is capable of producing upwards of two billion five hundred million (2,500,000,000) barrels of oil—five times the original estimate."

Not an Experiment

The extraction of oil from shale has been carried on for many years in Scotland on a scale sufficiently large to give a yield averaging of late 1,200,000 barrels yearly used largely for illuminating purposes. The Scottish shale industry has furnished proof that a steady output of gasoline could be secured, were the need to arise, and the price to warrant, from the Rocky Mountain shales. The cost would be greater, perhaps materially greater, than that of crude petroleum from flowing wells, but there will be some offset from the carrying on of production and distillation as a continuous process.

What Coal Could Add

The bituminous coal and lignite reserves of the United States were considered by the International Geological Congress in Ottawa in 1913. Estimating the best "reasonably possible" average recovery, based on the figures then accepted, it is believed that mining to a depth of 3000 feet would produce two trillion, four hundred sixty-one billion, two hundred sixty million (2,461,260,000,000) tons. From this tonnage, so great as to become almost meaningless, the estimated maximum oil recovery would be two trillion, ninety-five billion, four hundred million (2,095,400,000,000) barrels and the minimum five hundred twenty-five billion, five hundred sixty million (525,560,000,000) barrels. The smallest estimate of the motor fuel recovery is ninety-two billion, ten million (92,010,000,000) barrels, and the maximum three hundred ninety-two billion, six hundred forty million (302,640,000,000) barrels.

The practical value of the petroleum reserves contained in coal is materially lessened by the fact that the mining of coal for oil production alone would be a costly proceeding, while the retorting of the entire tonnage of bituminous and lignite coal mined for general consumption in the United States in 1924 — 438,000,000 tons — would have produced only 306,000,000 gallons of gasoline, or barely 3 per cent of the total consumption.

The Committee on Supply is indebted to Horace C. Porter and to Ross H. Dickson for discussions on the production of liquid fuel from coal which appear in Section II of the Supply Report.

Two Completions at Hull Boost Field Average to 18,500 Barrels

Houston, Texas.—The completion of two wells early this week in the Hull field for a combined flush production of 6500 barrels points to a decided increase in the output of this field during the past week.

The completion of the Humble Oil & Refining Company's No. 4 Merchant Monday, August 17, for an initial production of 4500 barrels in the Hull field represents the best producer completed in the Gulf Coast region within the past three months. This well is flowing from a depth of 4125 feet. Its location is on the Merchant lease, 1501 feet north of the No. 1 Merchant, which has been producing steadily for some time.

Hull's second producer brought in this week was completed August 18, for a flush yield of around 2000 barrels from a 3200-foot sand. This well is the No. 6 Merchant of the Higgins Oil & Fuel Company, and is located on the Merchant lease, De Vore league, 203 feet east of the west line.

Hull field, though long considered past the peak and on the decline in production, has, owing to several good completions within the past month, shown indications of a strong comeback. The field has consistently held up to a good daily average production, and now stands first among all the fields of the Texas Gulf Coast in production, having last week risen above the daily output of both the Orange and the South Liberty fields. Production from Hull for the week ending August 8 aggregated a total of 18,510 barrels per day, whil the total output of South Liberty and Orange was 16,450 barrels and 16,500 barrels respectively.

Hope Natural Gas Gets 350 Barrel Well in Pennsylvania

Pittsburgh, Pa.—Pennsylvania has the only real gusher reported in the fields east of the Mississippi river of recent date. This find was made by the Natural Gas Company in a second well drilled on the T. F. Rutan lease, along Patterson creek, in the Morris township area of Greene County, in what was supposed to be almost exclusively a gas producing region. The Nineveh sand brought forth a surprise when the well showed a flush production of 350 barrels the first 24 hours. It will naturally bring about an active drilling campaign in the immediate vicinity, although every available acre is held under lease by the large gas companies. The well should maintain its production owing to the fact that 30 feet of the sand was penetrated.

The old Bradford field of Pennsylvania, the most noted and best known oil field on the American Continent, is still an active spot after drilling has been maintained in the field since back in the early 70's. The later wells are not large, but they stay well and are money makers. Another well located in the Arthurs in the Knox field drilled by the O'Neil Brothers, which started off at 10 barrels an hour and estimated as a 50 barrel producer. The oil is black and of an inferior nature.

In the Bolivar field of Southwestern New York, Jordan Brothers well at 50 barrels; Moore & Hogans well at 30 barrels; Forrest Oil Company's well and the Producers Oil Company's well at 20 barrels each, ae producers far above the general average for any of the old fields.

West Virginia showed a slight improvement in the finding of oil production the past several days with wells showing as high as 35 barrels, and some at 15 and 25 barrels. The bulk of the development in this state is under the supervision of the large gas companies.

Outside of two wells found in Cumberland County, in the southern-central portion of Kentucky, the state showed little development. The wells referred to produced 75 and 100 barrels respectively, Barren County, known as the Glasgow field and one of the oldest fields of the state, is leading in operations.

Poor results in finding production was the week's routine of Southeastern Ohio, while Central Ohio did much better, as Perry County is credited with a 140-barrel well and Hocking County with one at 120 barrels, both being in the Clinton sand. The Empire Gas and Fuel Company made the best strike made in Lorain County, in this field, for a number of years, by drilling a 40-barrel flush well, a purely wildcat, at a depth of 3413 feet. Northwestern Ohio furnished but average wells ranging in production from 2 to 25 barrels.

Attempts will be made to extend the Northwestern Ohio or Trenton Rock field to the north as seven new locations, all tests, have been staked out in Monroe County, where an extensive structure has been found and which looks very promising for an oil field.

Barton township, Gibson County, in southwestern Indiana, has a new wildcat venture that shows for 25 barrels at a depth of 1509 feet, drilled by Joe Young and Associates. This well should bring out a more active development there. Late Illinois wells were light, ranging from 2 to 40 barrels.

Northeastern Indiana is in for some additional wildcat work, in the vicinity of Fort Wayne, in Maumee township, Allen County, where three wells several miles in advance from production are showing commercial production.

Obispo Well in Kern County

Los Angeles, Calif.—Obispo Oil Company's test in Maricopa Flats in Kern County was completed August 10 for 8000 barrels of 20 gravity oil at 4010 feet. Brown shale was reached at about 2600 feet and from that point to bottom there was oil sand mixed with brown shale. There are a number of shallow wells in this area and several of them will be drilled deeper. At least six new holes will be drilled at once as offsets or as near as possible.

The pressure began to go off Tuesday morning and the well made 4050 barrels on Wednesday, sanding up Thursday morning. It is now being cleaned out.

A. P. I. Recommendations on Field Boilers

(*Continued from page 32.*)

	50 H.P.	65 H.P.	85 H.P.
40: Guy Wires	4	4	4
Steam Gauge 0 to 300 lbs.	1	1	1
Brass Radiator Syphon with Cock and Test Gauge Con.	1	1	1
2-inch Brass Pop Valve ASME	1	2	2
Gauge Cocks	3½"	3½"	3½"
Blow Off Cocks	1—1¼"	1—1½"	1—1½"
Globe Valve for Feed Water	1—1¼"	1—1¼"	1—1¼"
Horizontal Check Valve, Feed Water	1—1¼"	1—1¼"	1—1¼"
Nipples	3—1¼"x2½"	2—1¼"x2½"	2—1¼"x2½"
Nipples		1—1½"x2½"	1—1½"x2½"
Brass Bushings	1—1½"x1¼"	1—1½"x1¼"	1—1½"x1¼"
Water Gauge Connections	1 Set	1 Set	1 Set
Water Gauge Glass	1—5½"	1—5½"	1—5½"
Niggerhead	1—3"	1—3"	1—3"
Steam Outlet Nipple	1—3x4	1—3x4	1—3x4

"It was moved, seconded and unanimously carried that the Manufacturers' Committee try and adopt at an early date uniform dimensions, such as width, height, length, position of dome, etc., of boilers of the same horsepower, which we believe to be a great advantage to the operator in establishing battery of boilers in sations on properties where different makes of boilers have been used.

"The following was adopted:

"(a) Front head, above tubes, to be stayed with diagonal stays.

"(b) Rear furnace sheet above crown sheet to be stayed with diagonal stays.

"(c) 11x15-inch manhole to be placed in shell above tubes.

"(d) Safety valve connection to be placed on side of dome."

The following members of the committee were present:

A. B. Steen, National Chairman, The Texas Company, Houston; B. M. Nowery, The Palmer Corporation, Shreveport; S. J. Dickey, General Petroleum Corporation, Los Angeles; D. F. Connolly, Tulsa; D. R. McWilliams, The Palmer Corporation, Shreveport; W. L. Connelly, Mammoth Oil Company, Casper; Charles E. Fisher, The Titusville Iron Works Company, Titusville, Pa.; W. V. Bowles, The Texas Company, Houston, and M. H. Broderick, The Broderick Company, Muncie, Indiana.

CRUDE OIL PRICE QUOTATIONS

Crude Price Changes

Effective August 15—Humble Oil & Refining Company posted a new schedule based on gravity on all oil purchased by this company in Central and North Texas, making a new differential on grades. The cut is graduated from 5 cents per barrel on low to 37 cents on high gravity crude.

August 18—Magnolia Petroleum Company revised schedule on Texas purchases to conform largely with Humble action outlined above.

Effective August 17—Joseph Seep Purchasing Agency announced further reduction of Eastern oils, approximating 25 cents per barrel. On August 18, Macksburg oil was further reduced 25 cents per barrel to $3.00.

Effective August 18—Sinclair Crude Oil Purchasing Company and other buyers of Garber, Oklahoma, crude cut the price an average of 10 cents per barrel. The new schedule in effect removes the premium from Garber prices which now conform to Mid-Continent schedule.

Current Postings

EASTERN STATES

	Aug. 19 1925	Aug. 22 1924
New York Transit	$3.40	$3.00
Bradford District	3.40	3.00
National Transit	3.30	...
Southwest	3.30	...
Eureka	3.25	...
Macksburg	3.00	...
Gains	2.95	...
Somerset medium	2.30	1.35
Somerset light	2.45	1.70
Cabell	2.20	...
Ragland	1.20	...
Corning	1.80	...

CENTRAL STATES

Illinois	$2.12	$1.62
Indiana	2.13	1.63
Lima	2.33	1.83
Plymouth	1.65	1.00
Princeton	2.02	1.62
Waterloo	1.10	1.10
Wooster	2.35	1.65

WESTERN KENTUCKY

Posted by Indian Refining Company for crude from Allen, Warren, Franklin, Davies, Barren, Cumberland and Monroe Counties

36 and above	2.05	1.50
33 to 35.9	1.95	1.40
32.9 and below	1.85	1.30

CALIFORNIA

(Crude oil prices at well)

Los Angeles and Orange Counties

14 to 19.9 gravity	$1.25	$1.00
20 to 20.9 gravity	1.27	1.01
21 to 21.9 gravity	1.30	1.02
22 to 22.9 gravity	1.33	1.03
23 to 23.9 gravity	1.36	1.05
24 to 24.9 gravity	1.40	1.07
25 to 25.9 gravity	1.44	1.10
26 to 26.9 gravity	1.48	1.13
27 to 27.9 gravity	1.52	1.16
28 to 28.9 gravity	1.56	1.19
29 to 29.9 gravity	1.60	1.22
30 to 30.9 gravity	1.64	1.25
31 to 31.9 gravity	1.68	1.28
32 to 32.9 gravity	1.72	1.31
33 to 33.9 gravity	1.76	1.34
34 to 34.9 gravity	1.80	1.37
35 gravity and above	1.85	1.40
Fuel Oil	1.65	1.40

Rosecrans Field

36 to 36.9 gravity	$1.92
37 to 37.9 gravity	2.00
38 to 38.9 gravity	2.08
39 to 39.9 gravity	2.16
40 to 40.9 gravity	2.24
41 to 41.9 gravity	2.32
42 and above	2.40

MID-CONTINENT

Prairie, Sinclair, Texas, Gulf

28 to 28.9 degrees	$1.40	1.10
29 to 29.9 degrees	1.48	1.10
30 to 30.9 degrees	1.56	1.25
31 to 31.9 degrees	1.64	1.25
32 to 32.9 degrees	1.72	1.25
33 to 33.9 degrees	1.80	1.50
34 to 34.9 degrees	1.88	1.50
35 to 35.9 degrees	1.96	1.50
36 to 36.9 degrees	2.04	1.50
37 to 37.9 degrees	2.12	1.50
38 to 38.9 degrees	2.20	1.50
39 to 39.9 degrees	2.28	1.50
40 to 40.9 degrees	2.36	1.50
41 to 41.9 degrees	2.44	1.50
42 to 42.9 degrees	2.52	1.50
43 to 43.9 degrees	2.60	1.50
44 Baume gravity and above	2.68	1.50

(Magnolia Petroleum Co.)

Under 28 gravity	1.00	.90
28 to 30.9 gravity	1.35	1.00
31 to 30.9 gravity	1.53	1.10
32 to 32.9 gravity	1.59	1.10
33 to 33.9 gravity	1.65	1.25
34 to 34.9 gravity	1.71	1.25
35 to 35.9 gravity	1.77	1.25
36 to 36.9 gravity	1.83	1.25
37 to 37.9 gravity	1.89	1.25
38 to 38.9 gravity	1.95	1.25
39 to 39.9 gravity	2.01	1.25
40 to 40.9 gravity	2.07	1.25
41 to 41.9 gravity	2.13	1.25
42 to 42.9 gravity	2.19	1.25
43 to 43.9 gravity	2.25	1.25
44 Baume gravity and above	2.31	1.25

NORTH AND CENTRAL TEXAS

For Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie and Moran Crude.

	The Texas Co.	Humble O. & R. Co.
28 to 28.9	1.40	1.35
29 to 29.9	1.48	1.41
30 to 30.9	1.56	1.47
31 to 31.9	1.64	1.53
32 to 32.9	1.72	1.59
33 to 33.9	1.80	1.65
34 to 34.9	1.88	1.71
35 to 35.9	1.96	1.77
36 to 36.9	2.04	1.83
37 to 37.9	2.12	1.89
38 to 38.9	2.20	1.95
39 to 39.9	2.28	2.01
40 to 40.9	2.36	2.07
41 to 41.9	2.44	2.13
42 to 42.9	2.52	2.19
43 to 43.9	2.60	2.25
44 and above	2.68	2.31

SOUTH TEXAS

Mirando (Texpata)	1.00	.80
Mirando (Magnolia)	1.00	.75

SOMERSET

(Grayburg Pipe Line Company)

28 to 28.9 gravity	$1.40	$1.00
29 to 29.9 gravity	1.48	1.00
30 to 30.9 gravity	1.58	1.00
31 to 31.9 gravity	1.64	1.10
32 to 32.9 gravity	1.72	1.10
33 to 33.9 gravity	1.80	1.25
34 to 34.9 gravity	1.88	1.25
35 to 35.9 gravity	1.96	1.25
36 to 36.9 gravity	2.04	1.25
37 to 37.9 gravity	2.12	1.25
38 to 38.9 gravity	2.20	1.25
39 to 39.9 gravity	2.28	1.25
40 to 40.9 gravity	2.36	1.25
41 to 41.9 gravity	2.44	1.25
42 to 42.9 gravity	2.52	1.25
43 to 43.9 gravity	2.60	1.25
44 or above gravity	2.68	1.25

GULF COAST

Grade "A"	1.50	1.35
Grade "B" at Blue Ridge, Hull and Pierce Junction	1.25	1.15

LULING

Based on Contract	1.15	.90
Lockhart	2.00	...

LOUISIANA-ARKANSAS

Caddo

38 gravity and above	2.20	1.35
35 to 37.9 gravity	2.10	1.25
32 to 34.9 gravity	2.00	1.15
Below 32 gravity	1.85	1.00

Homer

35 gravity and above	1.95	1.35
33 to 34.9 gravity	1.85	1.25
31 to 32.9 gravity	1.75	1.15
Below 31 gravity	1.60	1.00

Cotton Valley

All Grades	1.10	.80

Haynesville

33 gravity and above	1.85	1.25
Below 33 gravity	1.75	1.15

Bull Bayou

38 gravity and above	2.00	1.30
35 gravity to 37.9	1.85	1.15
32 to 34.9 gravity	1.70	1.00
De Soto crude	2.05	1.35
Crichton	1.85	1.15
Bellevue	1.65	1.25
Jennings	1.90	1.75
Vinton	1.90	1.75
Edgerly crude	1.90	1.35

Smackover

Atlantic, Shreveport-Eldorado

28 and above	1.40	...
27 to 27.9	1.35	...
26 to 26.9	1.30	...
25 to 25.9	1.25	...
24 to 24.9	1.15	...
23 to 23.9	.95	...
Below 23	.90	...

The Texas Company

26 gravity and above	1.35	...
24 to 25.9	1.05	...
Below 24	.85	...

Standard—Gulf

27 and above	1.35	.95
26 to 26.9	1.30	.95
25 to 25.9	1.25	.80
24 to 24.9	1.15	.70
Below 24	.85	.60

Louisiana Oil Refining Corporation

28 and above	1.40	...
27 to 27.9	1.35	...
26 to 26.9	1.30	...
25 to 25.9	1.25	...
24 to 24.9	1.15	...
23 to 23.9	.95	...
Below 23	.85	...

El Dorado

33 gravity and above	1.85	1.35
Below 33 gravity	1.75	1.25
East Field (Calion)	.85	.60

Stephens District

26 gravity and above	1.75	...
Below 26 gravity	1.55	...

WYOMING-MONTANA

Wyoming

Byron	2.25	...
Ferris	1.30	...
Elk Basin	2.15	1.45
Grass Creek	2.15	1.45
Rock Creek	2.00	1.20
Lost Soldier	1.35	...
Lance Creek	2.15	1.50
Mule Creek	1.50	.60
Notches	.65	...
Big Muddy	2.00	1.00
Osage	2.15	1.40
Hamilton Dome	1.80	1.10
Pilot Butte	1.75	.75
Torchlight-Greybull	2.00	1.40
Lander	.85	.45

Salt Creek

(Midwest Refining Company)

29 to 29.9 gravity	$1.48	$1.10
30 to 30.9 gravity	1.56	1.10
31 to 31.9 gravity	1.64	1.10
32 to 32.9 gravity	1.72	1.10
33 to 33.9 gravity	1.80	1.10
34 to 34.9 gravity	1.88	1.10
35 to 35.9 gravity	1.96	1.10
36 to 36.9 gravity	2.04	1.10
37 to 37.9 gravity	2.12	1.10

Montana

Sunburst	1.55	.90
Cat Creek	2.15	1.45

NEW MEXICO

Hogback	2.20	...

CANADIAN CRUDE

Oil Springs	2.80	2.30
Petrolia	2.73	2.23

*Bounty on Canadian crude is ¼ cent per gallon, or 26¼ cents per barrel.

THE LOCATION of dealers who feature Sinclair Oils makes no difference in the closeness of the contact between us—a contact closer than is usual between buyer and seller.

Sinclair dealers are never without Sinclair service and co-operation. Sinclair recognizes and fulfills its obligations to the dealer.

SINCLAIR REFINING COMPANY

NEW YORK
Sinclair Oil Bldg., 45 Nassau St.
Telephone: Rector 9320

CHICAGO
22nd and Rockwell Streets
Telephone: Crawford 2000

Cable Address: "Lucent"

SINCLAIR OILS

AVERAGE DAILY PRODUCTION FOR U.S.

Mountain States

Daily average pipe line runs from all the fields in the Rocky Mountain states during the past and previous weeks follow:

WYOMING

Field—	Past Week	Prev. Week
Salt Creek	61,440	59 240
Teapot	1,840	1,565
Big Muddy	3,320	3,410
Grass Creek	5,570	4,150
Elk Basin	880	925
Greybull	150	180
Rock Creek	2,680	2,880
Lance Creek	690	735
Poison Spider	1,530	1,225
Osage	330	470
Hamilton Dome	630	680
Mule Creek	740	775
Lander	380	410
Lost Soldier	5,880	5,820
Ferrill	90	90
Notches	320	125
Pilot Butte	180	175
Rex Lake	400	100
Totals	87,050	82,955

COLORADO

Craig	2,240	1,115
Fort Collins	1,230	1,570
Boulder	25	30
Florence	260	260
Rangely	100	100
Tow Creek	120	120
Totals	3,975	3,195

MONTANA

Cat Creek	3,500	3,550
Kevin-Sunburst	11,000	12,480
Totals	14,500	16,030

NEW MEXICO

Artesia	2,500	2,525
Rattlesnake	490	380
Hogback	540	560
Totals	3,530	3,465
Miscellaneous	200	200
Rocky Mountain Totals	109,255	105,845

Kansas

Greenwood County	29,450	28,230
Rainbow Bend	11,900	12,200
Eldorado	14,260	13,800
Elbing-Peabody	5,950	5 500
Augusta-Douglas	3,800	3 300
Blankenship	2,800	2,400
Florence-Covert	2,130	1,900
Other fields	26,450	22,950
Totals	94,490	90,280

California

Los Angeles, Calif., August 17.—The daily average production of the California fields the past week, compared with the previous week, with number of producing wells in several of the fields, was about as follows:

Field	Past Week	No. Prod. Wells	Prev. Week
Inglewood	106,000	128	108,000
Long Beach	105,000	534	108,500
Santa Fe Springs	53 000	346	53,200
Huntington Beach	44,000	321	44,700
Torrance	36,000	586	36,000
Dominguez	30,000	60	22,000
Rosecrans	24,000	70	30,000
Other fields	275,000		274,200
Totals	673,000	2047	676,600

Oklahoma

	Past Week	Prev. Week
Burbank	54,180	54 200
Tonkawa	52,710	53,625
Bristow	43 800	44,000
Cromwell	29.350	32,000
Osage (outside Burbank)	34,840	35,000
Okmulgee	25,000	25,400
Cushing	21,500	21,300
Braman	20,130	17,840
Gilcrease-Papoose	15,600	15,850
Hewitt	14,500	14,500
Garber	13,200	12,500
Wewoka	12,210	.....
Otoe	6,360	6,000
Stroud	3,250	4,240
Thomas	4,025	4,050
Other fields	92,400	85,400
Totals	443,550	440,420

Louisiana

Haynesville	12,925	12,985
Cotton Valley	11,490	10,670
Caddo light	8,915	8,985
Vinton	9,500	8,900
Homer	6,400	6,495
Bull Bayou	4,095	4,085
Bellevue	2,920	3,065
Caddo heavy	2,590	2,680
Evangeline	785	775
Elm Grove	570	565
Edgerly	600	595
Lockport (Lake Charles)	140	150
Anse La Butte	25	25
Totals	60,955	59 975

Arkansas

Smackover heavy	197,025	219,000
Smackover light	26,935	27,275
El Dorado	8,905	8,845
Stephens	1,795	1,780
Irma	1,490	1,565
Totals	236,150	258 465

Texas

NORTH-CENTRAL TEXAS

	Past Week	Prev. Week
Corsicana-Powell	45,670	45,940
Archer County	36,937	37,070
Big Lake-Reagan County	31,300	30,505
Wortham	26,100	27,550
Mexia	18,725	18,750
Electra	17,395	17,235
Stephens County	14,195	14,285
Burkburnett	14,200	14,165
Young County	11,495	11,675
Eastland County	9,965	9,980
South Vernon-Wilbarger Co.	8,890	8,760
K-M-A and Iowa Park	5,800	5,690
Richland	3,780	3,650
Panhandle District	3 385	3,600
Moran-Shackelford County	3,425	3,525
Callahan County	3,015	3,195
Brown County	3,175	2,895
Mitchell County	2,135	2,165
Currie	1,200	1,310
Palo Pinto County	605	625
Montague County	390	420
Petrolia-Clay County	385	400
Baylor County	150	145
Coleman County	255	245
Scurry County	60	60
Throckmorton County	215	100
Thrall-Williamson County	40	40
Jack County	35	35
Totals	262,722	262,015

GULF COAST

Hull	18,775	18,510
Orange	15,225	16,500
South Liberty	14 900	16,450
West Columbia	11.550	11,380
Goose Creek	9,500	9,875
Humble	4,225	4,560
Sour Lake	4,300	4,375
Saratoga	1.625	1 710
Batson	1,550	1,400
Damon Mound	1,130	1,160
Spindle Top	1,060	1,120
Blue Ridge	610	590
Big Creek	1,050	1 200
High Island	520	550
Pierce Junction	425	425
Markham	70	80
Barbers Hill	135	135
Dayton	50	50
Nacogdoches	30	30
Totals	86,730	90 100
Totals North C. Texas	262,722	262,015
Luling	24,490	23,800
Mirando	6 500	6,800
Somerset	2,500	2,530
Lockhart	11,336	10,860
Misc. South Texas	510	520
Totals	394,788	396,625

Condensed U. S. Production for Twelve Months

(Stated in Barrels)

This table is compiled each week by The OIL WEEKLY, and shows daily production average for each state or section.

Daily average for month	*Mid-Continent	North Central Texas	Texas Coastal	Texas Total	Kansas	Okla	Louisiana	Eastern States	Wyo. Mont. Colo. New Mexico	Calif	Ark	Texas
March	762,684	284,874	78,567	388,221	69,864	407,946	55,783	97,800	128,352	650,790	119,869	1,917,023
April	777,590	276,595	76,755	380,005	71,015	429,980	54,740	101,250	127,700	649,825	128,750	1,943,270
May	763,320	267,475	74,175	374,915	71,490	424,355	60,655	103,800	127,770	640,930	148,630	1,952,545
June	799,230	260,785	74,335	375,310	74,265	464,175	62,660	105,750	125,735	628,400	157,165	1,993,465
July	815,830	254,665	73,445	378,365	81,545	479,620	63,855	107,175	124,305	620,175	148,655	2,003,695
August	861,640	254,520	75,700	377,045	85,765	521,355	62,595	107,000	123,895	619,200	142,740	2,037,890
September	886,650	253,243	76,953	366,197	86,758	546,647	62,162	107,622	117,345	611,500	131,343	2,029,580
October	855,823	247,222	75,713	359,861	86,884	521,717	62,493	106,600	107,270	605,060	123,235	1,972,902
November	851,733	248,467	71,648	369,621	86,031	517,237	66,117	106,375	91,205	594,000	119,893	1,950,478
December	873,344	267,065	65,437	385,410	88,065	518,213	59,602	106,875	83,472	606,875	111,402	1,959,917
January	906,160	334,305	65,065	448,980	88,390	483,465	56,520	106,200	78,435	602,600	106,280	1,970,350
February	861,130	292,796	63,885	405,195	88,790	479,545	56,825	105,125	87,710	598,375	106,085	1,927,680
March	839,200	301,795	83,800	434,410	84,965	452,440	58,030	100,550	90,900	605,775	112,425	1,939,520
April	836,110	294,040	94,215	435,035	84,360	457,710	57,700	98,250	91,845	602,800	209,840	2,037,545
May	835,350	295,695	100,205	447,080	93,610	446,040	60,945	101,140	91,492	609,200	419,770	2,269,280
June	834,927	286.095	94,514	432,121	98.220	450,637	59,977	103,675	87,477	642,500	349,962	2,249,296
July	807,949	272,119	94,669	414,673	96,967	438,863	60,328	104,360	99,726	671.440	247,574	2,133,932
August 1	801,995	272,050	93,008	411,688	92,300	437,645	59,495	103,500	101,025	682,500	241,280	2,129,433
August 8	786,150	262.015	90,100	396,625	90,280	433,855	59,976	104,200	105,845	676,600	258,465	2,125,846
August 15	800,762	262,722	86,730	394,788	94,490	443,550	60,955	104,500	109,255	673,000	236,150	2,116,688

*Includes North Central Texas, Kansas, Oklahoma.

NOTE—Wortham, Corsicana-Powell and Mexia production included in North Central Texas.

New Wells Add 10,000 Barrels Flush for Lockhart Area

Lockhart, Texas. — Completing nine wells for approximately 10,000 barrels flush production, the Lockhart field has just ended one of its most active weeks in its history.

Gulf Production Company's No. 13 Brewer, which blew in late in the week for 5000 barrels flush, was first completed on July 10 as a large well, but the output began to decline and a week ago it was down to about 100 barrels. The crew was working on the producer when it cleared itself and started to flow.

Following are the wells completed during the past week:

Witherspoon Oil Company No. 1 Cardwell, 1700 barrels, 1557 feet; No. 7 Cardwell, 1500 barrels, 1555 feet. Gulf Production Company's No. 13 Brewer, 5000 barrels, 1300 feet; No. 15 Cardwell, 250 barrels, 1600 feet; No. 16 Cardwell, 250 barrels, 1600 feet. Magnolia Petroleum Company's No. 8 Beaty, 400 barrels, 1550 feet; No. 9 Beaty, 400 barrels, 1500 feet. Eagle Drilling Company's No. 2 Cardwell, 250 barrels, 1600 feet; No. 2 Dannelly, 200 barrels, 1550 feet.

If the present campaign, which got under full headway two weeks ago, continues, production of the Lockhart field probably will go to the 25,000 barrel mark, or higher. The production of the field at the end of the week was about 15,000 barrels daily.

One of the new operators in this district is O. W. Killam, discoverer of oil in the Mirando district. Mr. Killam has leased a large tract around the old Carr well eight miles southwest of the field and announces that he will develop that shallow field.

The old Carr well was completed about twenty years ago as a 25 barrel producer at 500 feet. This well is capable of producing that amount of oil at present, according to operators.

The Gulf followed with an announcement that it would drill a shallow well on its 1000-acre Cardwell lease, between the Killam properties and the main field.

Should the Gulf's well be completed as a shallow producer, it probably would link up the shallow producing sand of the Lockhart field, 600 to 700 feet deep; the Carr well, 500 feet deep, and the shallow showings found in the Luling field at about the same depth.

COMPLETIONS FOR PAST WEEK IN U.S. FIELDS

Summarized Review of Field Results

State—	Completions This Week	Completions Last Week	Producers This Week	Producers Last Week	Gas Wells This Week	Gas Wells Last Week	Failures This Week	Failures Last Week	Initial Product'n This Week	Initial Product'n Last Week
Arkansas	35	53	26	36	5	5	4	12	14,810	32,880
California	..	32	..	28	..	..	..	4	....	21,915
Colorado	..	..	..	..	..	..	..	..	....	....
Indiana	3	10	1	6	..	..	2	4	25	60
Illinois	5	6	4	4	..	..	1	2	76	230
Kansas	40	40	21	22	..	2	19	16	3,672	3,445
Kentucky	32	29	21	18	1	2	10	9	392	291
Louisiana	4	6	3	1	..	1	1	4	600	150
Montana	5	15	4	12	..	..	1	3	1,605	5,630
New Mexico	1	..	1	..	..	..	..	..	500	....
New York	20	10	20	10	..	..	..	..	198	35
Ohio	37	70	21	43	6	11	10	16	494	586
Oklahoma	109	91	62	43	9	10	38	38	6,472	7,398
Pennsylvania	67	60	56	45	7	9	4	6	584	207
Texas	122	156	71	80	3	2	48	74	21,828	10,241
West Virginia	22	31	8	13	7	11	7	7	116	103
Wyoming	13	25	11	23	..	..	2	2	840	1,842
Totals	393	634	259	384	35	53	99	197	52,212	85,013

NOTE—Following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡—salt water; †—junked and abandoned; ¶—million cubic feet of gas; abn—abandoned; bbls—barrels; b. s.—basic sediment; cas—casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in—inches; lcn—location; m—milling N. S. E. W.—North, South, East, West; r—reaming; sd—shut down; sdtr—sidetracking; sp—spudding; sr—straight reaming; std—standardizing; sw—salt water; td—total depth; ur—under reaming; wo—workover; wosr—waiting on standard rig.

Texas

ARCHER COUNTY

Company, Well, Location—	Initial Production Bbls.	Depth
Shappell Oil Co.'s Jackson 24	30	1802
Jackson 25	125	1807
Barkley & Meadows Wilson 10	60	1524
Bridwell et al's Oil Inv. Co. 4	*	1230
Burns & Maxson's L. F. Wilson 6	135	1414
B. Champion et al's P. Browning 4	*	500
Comac Oil Co. et al's Plowman et al 1	25	1606
Kentucky Oil Corp.'s Wilson 1 "N"	*	1416
Muse, Robertson & Corlett's L. F. Wilson 1	65	1524
Waite Phillips Co.'s F. Wilson 1 "B"	*	1803
L. F. Wilson 14	*	1526
L. F. Wilson 15	55	1506
L. F. Wilson 17	187	1505
Prairie Oil & Gas Co.'s Wilson 14 E	128	1587
Riner-Bailey & Archer Oil Co.'s S. M. Gose 2	20	1584
Riner & Bailey's Wilson 27 "B"	45	1620
Scott & Gose et al's J. E. Parrish 8	55	1592
Texhoma Oil & Ref. Co.'s Wilson 14 "B"	*	1596
Humble Oil & Ref. Co.'s Hamilton 5	*	1500
Mahlstedt Mook Oil Co.'s Bishop 1	*	1461
Root Drilling Co.'s Routan 3	35	1274
The Texas Co.'s Richardson 6	27	1349
Weldon et al's Anderson 1	*	1440
Wolf et al's Andrews 1	*	1102
Magnolia Pet. Co.'s Coffield 6	52	1396
B. F. Weekley's Pace 1	*	1502

YOUNG COUNTY

Company, Well, Location—	Initial Production Bbls.	Depth
F. H. E. Oil Co.'s Dunagan 6	60	1013
Globe Drilling Co.'s Leberman 1	*	1105
Hill & Roberts' Kilcrease 1	*	1035
Moores et al's Graves 1	*	1353
Jackson 1 "A"	10	1229
Murchison-Fain & Litchfield's Campbell 11 "D"	200	983
Campbell 12 "D"	100	985
Campbell 13 "D"	275	985
Campbell 14 "D"	*	1050
Petroleum Prod. Co.'s Kilcrease 1	115	1029
Plains Prod. Co.'s Kilcrease 4	60	1011
Kilcrease 5	30	1001
Simms Oil Co.'s Wright 1	*	1150
Stahl & Burris' Haley 1	*	1402
Weaver-Pois et al's Dunagan 2	78	1001

SHACKELFORD COUNTY

Company, Well, Location—	Initial Production Bbls.	Depth
Albany Oil Co.'s Moberley 4	20	1009
Reynolds 2	*	1361
Brannon & Murray's Elliott 3	*	2120
Hope Pet. Co.'s Reynolds 5	175	1288

STEPHENS COUNTY

Company, Well, Location—	Initial Production Bbls.	Depth
Oliver Oil & Gas Co.'s Bascom 1	*	420
Republic Prod. Co.'s Knox 6	20	3280
Clayton et al's Morton 1	4	3730
State Oil Corp.'s Lipe 1	*	3636
Vaughan 1	*	3566
"B" 1	*	3590
T. P. Coal & Oil Co.'s Jackson 1	*	3594
Wayland Oil Synd.'s Dooley 1	¶	3672
Williams et al's Rosenquest 11	15	1829

EASTLAND COUNTY

Company, Well, Location—	Initial Production Bbls.	Depth
Hoffman & Page's Higgins 1	*	1505
Petit et al's Sue 1	*	1860
Burkett et al's Robinson 1	*	3538
Paul McBride's White 1	15	2563

WICHITA COUNTY

Company, Well, Location—	Initial Production Bbls.	Depth
A. D. Robinson's Roller 12	*	1244
Apple & Brandeberry's Jennings 4 "B"	70	1807
J. H. Cottom et al's Roller 1	8	738
Fidelity Oil Corp.'s Peeler 1	18	1773
Peeler 11	3	450
J. A. Gardner et al's Peeler 2	75	1772
Magnolia Pet. Co.'s Maer 21	*	1800
Perkins & Cullom's Burnett Ranch 1	*	2001
Pet. Prod. Co.'s Allen & Kemp 10	65	1637
Allen & Kemp 11	125	1642

WILBARGER COUNTY

Company, Well, Location—	Initial Production Bbls.	Depth
Continental Oil Co.'s Zipperle 6	60	2329
Magnolia Pet. Co.'s Sumner 49	18	645
M. L. V. Smith's Waggoner 1	20	2403

GULF COAST

Company, Well, Location—	Initial Production Bbls.	Depth
Batson—		
Paraffine Oil Co. Knight 42	5	465
Sour Lake—		
Lake View Oil Co. Minor 6	*	3005
Hull—		
Humble O. & R. Co. Abel "A" 2	25	1815
Merchant 4	4500	4125
Higgins O. & F. Co. Merchant 6	2000	3200

Company, Well, Location—	Initial Production Bbls.	Depth
South Liberty—		
Gulf Prod. Co. Deussen Fee "A" 8..	200	3395
The Texas Co. Simms Fee 5.....	40	3330
Hoffer Oil Co. Pickett 2.....	*	3465
Humble O. & R. Co. Deussen Fee "A" 2	*	3725
Spindletop—		
Gulf Prod. Co. Gladys 214.....	*	945
Vinton—		
Gulf Refining Co. of Louisiana Vincent 40 1200		3165
The Texas Co. Gray "A" 2.....1000		3810
Vinton Petroleum Co. Gray 2.....	150	3410
Edgerly Petroleum Co. Vincent 6...	150	3260
Evangeline—		
The Texas Co. Latreille 19	500	3015
Richland—		
Gulf Prod. Co. Mary Hillburn 3....	175	3000
Sun Co. Mary Hillburn 4.....	75	3000
Powell—		
Humble O. & Ref. Co. Davis 19.....	42	1640
Fleming "B" 12.....	*	1642
G. H. Kent 5	*	1636

Kansas

Butler County—		
Vickers et al Powell 1, NWc SE 12 24-3	350	3488
Chase County—		
Selby O. & G. Co. Shambaugh 2, SWc SE 35-22-9	350	2409
Cowley County—		
Trees Oil Co. Shaffer 4, SEc SW NE 10-31-3	25	3038
Smith 2, NWc NE SE 10-31-3...	110	3037
Marland Oil Co. Bowers 6, SWc SE SW 10-33-3	125	3505
Roxana Pet. Corp. Spreun 5 "A," NWc NE SW 10-33-3.....	141	2576
Waite Phillips and Marland Dora Johnson 5, SEc NE SE 20-33-3..	97	3230
Wertman 15, SEc NW NE 20-33-3	98	3209
Wertman 16, NEc NW NE 20-33-3	800	3209
Southwestern Pet. Co. Harris 1, NWc SW 17-31-6	*	3003
Arkansas Fuel Oil Co. Crosley 4, NWc SW SW 7-32-5	*	3502
Elk County—		
B. L. Love Wilson 1, SWc NE 18-31-10	*	2467
Greenwood County—		
Pryor & Lockhart Deryshire 5, NEc SW SE 13-22-10	120	2126
Theta Oil Co. Borwning 11, NEc NW NE 17-22-10	40	2316
York State Oil Co. De Malorie 5 "C," NE NW NW 32-22-11	380	1929
Jennings et al Greenwood 6, NWc SW SE 33-22-11	75	1928
Empire Gas & Fuel Co. Scott 2, SWc SE SE 24-23-8	400	2612
Greenland Oil Co. Green 1, NEc SE NE 10-23-9	400	2346
Sheedy et al Green 4, NWc NE NW 11-25-9	60	2361
Mission Oil Co. Dales 2, NWc SW NW NW 30-23-9	36	2559
Arkansas Fuel Oil Co. Marshall 11, NEc SE NW 1-24-9	15	2333
Roth & Faurot Burkett 6, C E L SW NW 12-25-8	50	2295
Simmons & Burke Harris 1, NEc NW 19-22-11 .....s.....	*	2102
Phillips Pet. Co. Rose 1, NWc SE 2-23-10	*	2375
Buck et al Jenson 1, SEc NW 19-23-12	*	1920
Beacon Oil Corp. Burkett 1, C E L NE SE 14-26-9	*	2604
Woodson County—		
Marland Oil Co. Hessler 8, SEc NW SW 23-23-13	30	1577
Iowa-Kansas Dev. Co. Allen 1, NEc SE NE 2-24-14	50	1638
Reed 1, NWc SE 25-23-14.....	*	1729
Reddick 1, NWc 30-23-14.....	*	1650
Stockerbrand 3, SWc NW NW 1-24-14	*	1648
Lassen & Davis Leiban 1, SWc 13-23-13	*	1466
Black 2, C S L SE SE 14-25-13...	*	1435
Kingman County—		
Port Fleeger Graber 1, SWc SW 34-27-7w	*	3610
Lyons County—		
Jackson & Moreland Schultz 1, SEc SW 4-19-12	*	2147
Phillips Pet. Co. Wilhite 1, SWc NE NW 33-21-12	*	1928
Marion County—		
Watchorn O. & G. Co. Townsend 26, SEc NE NE SE 5-22-4w.....	*	3315
Phillips Pet. Co. Janson 1, SEc NE SW 16-22-4e	*	2702
Sedgwick County—		
J. H. Liggett Funk 1, NEc NW 11-26-1	*	3190
Trego County——		
Keys Brothers and Marine Oil Co. Davis 1, NEc SW 16-11-24w	*	3560

Oklahoma

Kay County—		
Comar Oil Co. Bechtel 3, NWc SW SE SW 5-28-1w	137	2390
Horne 3, C NW NE NW 8-28-1w	117	2404
Murphy 1½, C N½ NW 28-29-1w.	*	962
E. B. Shawver Tate 1, blk 1, lot 1, 8-28-1w	75	2366
Marland Oil Co. North 1, C NE NW NE 12-26-2w	150	2985
Producers & Refiners Corp. School Land 1, NWc SW NE SW 13-27-1e	*	2502
Noble County—		
Comar Oil Co. Blubaugh 23, SWc NW 1-24-1w	¶	760
Blubaugh 1-D, NWc SW 1-24-1w..	¶	1440
Mid Co. Pet. Co. Wilkins 1-A, C NE NE SE 30-24-1w	24	2009
Garfield County—		
Gosden & Marland School Land 48, NEc SW NE SE 13-22-4w.....	150	2356
School Land 50, SEc NW SE SE 13-22-4w	10	2354
School Land 51, SEc SW SE SE 13-22-4w	30	2359
Sinclair O. & G. Co. Walker 11, NEc NW NE 13-22-4w	10	2367
Roxana Pet. Co. Schroeder 9, SWc 19-22-3w	30	2064
Schroeder 27, SWc SE NW SW 18-22-3w	497	2339
Sinclair O. & G. Co. Hartley 17, C NW SW NW 18-22-3w	176	2362
Windler 10, C W L E½ NW SW 30-22-3w	15	2166
Campbell 10, C NW NE 20-22-3w.	50	2040
Morrison 9, SE SW NW 31-22-3w	35	2189
Creek County—		
Carter Oil Co. Yarhola 40, SWc SE NW 8-18-7	70	2517
Transcontinental Oil Co. Bishop 2, NWc SW 13-17-8	40	2293
Lorraine Pet. Co. Scott 3, NWc NE SW 23-16-8	200	3088
Joemack Oil Co. Mitchell 5, NEc NW SW 17-15-8	50	3800
Texas Co. Yarhola 2, NEc SW SW 23-15-8	5	2486
C. G. Tibbens Sewell 7, NWc NE 13-14-8	5	2385
Wood & Farren Charcotence 3, NWc NW SE 21-19-10 (owd)	520	2949
Adams & Gilpin Wiley 1, SWc NW SW 20-17-10	30	2155
Wilcox & Oswaldt Anthis 4, SEc NW SW 1-16-11	150	2330
Southwestern Oil Co. Harjo 2, SWc SE SE 18-14-10	100	2890
Laurel O. & G. Co. Knoll 10, SWc 22-16-8	*	3028
Buvibar Pet. Co. Manley 2, SEc NE SW 25-17-9	*	3860
Manley 3, NWc NE SW 25-17-9..	*	3212
Gypsy Oil Co. Self 1, NWc SE 25-17-9	*	3573
Twin State Oil Co. Brady 3, NWc SW NW 34-16-9	*	2970
Skelly & Billingslea Lucas 4, NWc NE 31-15-9	*	3114
Tulsa County—		
Holmes et al Robinson 2, NWc SE SW 14-19-10	50	2278
Riverland Oil Co. Gaylord 3, SWc SE SE 27-19-11	5	2175
Mutual Oil Co. Yargee 1, SWc NW NW SE 29-19-12	40	2175
Lee Drilling Co. McIntosh 1, C W L NE NE 6-17-14	10	1553
Edwards et al Lewis 11, C W L E½ NE 35-16-13	¶	1785
Sand Springs Home Oil Co. A. H. K. 2, NEc SE NE NW 15-19-11.....	*	2340
Greer et al Steele 1, NEc SW SW 23-19-11	*	2455
Thornton et al Douglas 1-A, NEc NW SE 22-19-12	*	2314
Hall et al Childers 1, NWc SE SE 2-17-9	*	1427
Okmulgee County—		
Sheridan Oil Co. Peters 1-A, SEc 33-16-11	15	2504

Just Published

Outlines of the Occurrence and Geology of Petroleum

An Introductory Handbook

By I. A. STIGAND, M.A., F.G.S.

As the title suggests, this handbook is elementary in character, and the main object is to furnish an outline of the general features concerning the occurrence and geology of petroleum or bitumen, in a condensed manner, and with especial reference to practical interest; in the hope that it may serve as an introduction to those desiring to become acquainted with the subject (or students in oil-geology), and that it may also be of some interest to the large class who are concerned in its economic or commercial aspects.

The discussion is limited to the more pertinent theoretical questions and practical considerations, or the general topics of interest; and, where possible, is illustrated by reference to known examples in the field. The materials and the views expressed are founded on personal observations and studies made in various regions during two decades.

CONTENTS

Introductory. The Origin of Bitumen. Stratigraphical Distribution of Petroleum and Stratigraphical Considerations. The Accumulation and Concentration of Petroleum in Relation to Geotectonic Conditions; and the Consequent Classification of Deposits. Problems and Factors in the Movement and Accumulation of Petroleum. Oil-Reservoir Rocks, and the General Features of Petroliferous Strata. Direct Indications of Petroleum. APPENDIX: Geophysical Methods as Applied to Oil-Finding, by Dr. Max Muhlberg.

34 Illustrations. 246 Pages. 12mo. $4.50

SEND CHECK TO

THE GULF PUBLISHING CO.,

1716 Dallas Avenue, Houston, Texas

Company, Well, Location—	Initial Production Bbls.	Depth
Clover et al Fee 5, SWc NW 3-15-11	25	2015
Cosden & Co. Noors 3, NWc NE SW 14-15-12	200	2623
Weit et al Hawkins 1, NWc SE 4-11-12	5	1557
A. G. Hazlett S. Tucker 1, SWc SE SE 2-13-14	¶	822
E. J. Lambert Freeman 4, C W L NE NW 7-13-15	¶	738
Texas Co. Lewis 16, SEc NW SE 20-15-14	40	2228
H. Hennessey J. Rowe 2, C N L SE SW 8-15-14	25	1870
Berry Pet. Co. Buffington 4, NEc NW SW 34-16-12 (owd)	*	2625
J. Brock et al Betts 9, C E L NE SW 32-13-11	*	2640
Okfuskee County—		
Josey Oil Co. McCoy 5, NWc NW SW 33-12-11	500	3643
Mid-Continent Pet. Corp. L. Fields 3, NEc SE SE 3-11-11	10	2691
Weir et al Hawkins 1, NWc SE 4-11-12	5	1557
Gibson & Zahniser ecumseh 1, C SE NW SE 16-10-9	¶	3287
Vincent et al Unallotted 1, NEc SE 28-11-11	*	3050
Seminole County—		
Gypsy & Laurel Wisner 1, C NE SE NW 5-10-9	410	3456
McMann & Magnolia Whitfield 1, C SW SW SE 34-11-8	325	3400
Denver P. & R. Corp. Lowe 1, C SE SE NW 6-10-8	*	3678
Magnolia Pet. Co. P. Kelly 1, C SW SW NE 12-8-7	*	3474
Link Oil Co. Caroline 1, C SE NW 14-6-7	*	2840
Hughes County—		
Dixie Oil Co. Diamond 1, C NW NW NE SE 18-8-10	67	3291
Indian Terr. Ill. Oil Co. Anderson 8, C NE NE SW 1-9-9	786	3334
Minnehoma Oil Co. Mongo 1, C SW SW NW 23-9-9	*	3376
Roxana Pet. Corp. Barnett 2, C NE NW SE 35-8-8	*	3320
J. W. McCullough G. Jefferson 3, C SE NE SW 35-8-8	*	3298
Waite Phillips Jefferson 1, C NW NE SE 35-8-8	*	3320
Jefferson 2, C SW NE SE 35-8-8	*	3043
McMann Oil Co. D. Jefferson 1, C NE NW NE 2-7-8	*	2682
Grady County—		
Oklahoma Natural Gas Co. Chandler 2 SEc NE 27-5-8w	¶	2500
Stephens County—		
Coline Oil Co. Thomas 6-B, NEc SE NE SE 25-1-9w (owd)	7	2015
Ellias Drilling Co. Bridenthal 6, C E L SE SE 19-1s-8w	25	2280
A. B. Cook Roy 1, SEc NW 10-1-9w	*	2705
Carter County—		
Humble Oil & Refg. Co. Dixon 1, C NW NW NW 19-1s-3w	50	3005
Amerada Pet. Corp. Westheimer 9, NWc NE SE NW 28-5s-1e	35	1238
Baptiste 4, NEc NE NW NW 28-5s-1e	25	1330
Humble Oil & Refg. Co. Burrowns 3, C NE NW SW 32-2s-2w	*	2927
Osage County—		
Devonian Oil Co.'s No. 14, NE SE NE NE 10-20-12	¶	1542
Phillips Pet. Co.'s No. 3 SE NE SE 10-21-9	15	2276
Selby O. & G. Co.'s No. 11, SE NE SE NW 16-21-12	5	1415
Sterling O. & G. Co.'s No. 5, SE NE SE SE 16-21-12	25	1367
Tidal Osage Oil Co.'s No. 21, SW SE SW SW 27-22-10	12	1932
Western American's No. 9, NEc 28-24-10	10	852
Peters Pet. Co.'s No. 10, SE NW SE NE 33-24-10	15	1400
Texas Co.'s No. 3, NE SE 29-25-8	227	2982
Phillips Pet. Co.'s No. 7, C NW SE NW 12-27-5	100	2875
Kansoma Oil Co.'s No. 1, C SE SW SE 36-27-11	15	1445
Edith Oil Co.'s No. 9, C W L E½ SW 27-28-11	10	1074
Prairie O. & G. Co.'s No. 6, C NW NE SE 12-27-5	100	3030
No. 8, C SE NE SE 12-27-5	225	3009
No. 9, C NE SE SE 12-27-5	200	2995
Sinclair O. & G. Co.'s No. 1, NE SW 6-27-7	*	3615
Wyona Oil Co.'s No. 1, NE NE 29-29-9	*	1460
Lambert et al's No. 1, C W L SE 36-29-11	*	1170
Pawnee County—		
Prairie O. & G. Co. Walker 1, C NE NE 22-23-4	¶	2950
Tidal Oil Co. Corrigan 1, SWc SW SE 15-23-4	*	3888
Lincoln County—		
Prairie O. & G. Co. Stout 8, C NW NW NW 3-14-5	25	3448
E. V. Bailey et al Tibbett 1, NEc NE SE 36-17-4	*	4358
Jefferson County—		
Prairie O. & G. Co. Seay 5, C N L NW SW 34-6s-5w	152	1230
Alfalfa County—		
McGinnis & Ward Watts 1, C NE SW SE 21-27-10w	*	3504
Grant County—		
Midwest & Gulf Moon 1, NEc NW 8-27-8w	*	2490
Frank Traves et al Fuss 1, SWc NW NW 30-26-4w	*	1250
Embry & Leright Edwards 1, C SE SE NW 20-26-4w	*	1000
Woods County—		
Victor Oil Co. Van Buskirk 1, SWc SE 10-25-15w	*	960
Love County—		
Jackson & Askew Havercamp 1, C SW SW NW 27-7-2e	*	3775
Wagoner County—		
A. A. Landis Grayson 1, NWc SE NE 22-16-18	*	955

Louisiana

Caddo Parish—		
Standard Oil Co. Stiles 172, 27-21-16	150	2375
Cotton Valley Field—		
Alabama Pet. Co. Robbins 1, 21-21-10	300	2585
Ohio Oil Co. Sidney 4, 16-21-10	150	2550
Totals, 3 wells	600	....

EAST TEXAS

Waskom Gas Field—		
Mid-Kansas O. & G. Co. Hudspeth 1, Bedford Headright survey, Harrison County	¶30	1896

Arkansas

Smackover Field, Ouachita County—		
Bailey & Murray Rhoten B-4, 32-15-15	4000	2412
Gulf Refg. Co. Ben Goodwin 8, 32-15-15	250	2374
Umstead 5, 32-15-15	300	2593
Umstead A-15, 33-15-15	175	2376
Humble O. & R. Co. Farris 6, 34-15-15	¶30	2581
F. A. & B. T. Laney 4, 31-15-15	600	2588
Ohio Oil Co. Arnold 3, 26-15-16	75	2080
Goodwin 5, 29-15-15	¶40	2584
Roxana Pet. Co. Williams 3, 24-15-15	¶40	2575
Simms Oil Co. Berg C-4, 32-15-15	4000	2414
Hirsch 6, 31-15-15	250	2590
F. A. Laney 9, 31-15-15	200	2596
Sinclair Oil Co. Berry 11, 33-15-15	550	2434
Standard Oil Co. Umstead 23, 32-15-15	250	2605
Smackover Field, Union County—		
Constantine Ref. Co. Goodwin 3, 36-17-16	100	2230
Crawford & Sebastian James 8, 6-16-15	160	2555
Gulf Ref. Co. Alphin 12, 10-16-15	200	2411
T. C. Murphy 19, 9-16-15	175	2435
T. C. Murphy 20, 9-16-15	¶45-60	2645
Hardy Murphy 35, 5-16-15	125	2365
Hardy Murphy 36, 3-16-15	¶30	2562
Hollifield et al Giller 12, 10-16-15	1500	2580
Humble O. & R. Co. F. Murphy 5, 3-16-15	50	2375
Lion O. & R. Co. Bilyieu B-1, 8-16-15	125	2510
O. G. Murphy T. C. Murphy 7, 9-16-15	¶30-15	2644
Ohio Oil Co. Murphy 8, 9-16-15	350	2410
Penguin Oil Co. Umstead 3, 4-16-15	150	2370
Phillips Pet. Co. Alphin 6, 11-16-15	*	2565
Simms Oil Co. Cook 9, 16-16-15	750	2653
Sunny Jim Oil Co. Flenniken 1, 9-16-15	¶20	2694
Sun Oil Co. McClanahan 3, 1-16-16	200	2560
Wingfield et al Wingfield 2, 5-16-15	200	2380
Totals, 32 wells	¶235-14,810	

Mountain States

WYOMING

Salt Creek Field—		
Carter Oil Co.'s No. 16-P, 8-38-78	50	2643
Continental Oil Co.'s No. 19-A, SW¼ 2-39-79	40	....
Wyoming Associated Oil Co.'s No. 20-A, NW¼ 19-40-78	100	2190
No. 22-A, SW¼ 25-40-79	50	1578
No. 19-A, NW¼ 30-40-78	60	1923
Midwest Oil Co.'s No. 36-A, NW¼ 2-39-79	100	1791
No. 18, SW¼ 35-40-79	60	1270
No. 18-A, NW¼ 23-40-79	120	1693
Salt Creek Cons. Oil Co.'s No. 1-A, SE¼ 3-39-79	100	1909
No. 21-A, SE¼ 3-39-79	60	2416
Wyoming Oil Fields' No. 1-A, SW¼ 25-40-79	100	1600
Grass Creek—		
Ohio Oil Co.'s No. 69-MI, 29-46-98	*	1252
Little Lost Soldier—		
General Pet. Co.'s No. 1, NE¼ 17-25-86	*	....

MONTANA

Kevin-Sunburst—		
Essax Oil Co.'s No. 6-B, SE¼ 20-35-1	500	1450
Regina Oil Co.'s No. 3-H, SE¼ 33-35-2	80	1494
Western Exploration Co.'s No. 4-B, NW¼ 12-35-2	*	1595
Johnson-Signal Synd. No. C, NW¼ 4-34-2	1000	1495
Cat Creek—		
Spokane-Cat Creek Oil Co.'s No. 2, 21-15-30	25	902

NEW MEXICO

Dome Oil Co.'s No. 1, 21-18-28	500	2163

Eastern States

PENNSYLVANIA

Bradford Field—		
South Penn Oil Co. Redfield 98	3	....
Fee 36	5	....
Fee 93	5	....
Hodge 1	4	....
Taylor 1	*	....
Gridiron Oil Co. Duke 5	7	....
Hazlewood Oil Co. Bingham 104	5	....
Hazlewood 46	2	....
Associated Producers Co. Fee 204	3	....
Bingham 567 tract 351	4	....
Bingham 582 tract 352	2	....
Moses Sullivan, Sullivan 1	3	....
J. F. Magee Hayter 1	4	....
Blair & Duke, Duke 1	4	....
F. E. Baldwin, Baldwin 1	4	....
T. B. Wilson Borden 3	4	....
Forest Oil Co. Murphy 1	4	....
Forest Oil Co. Porter 5	3	....
Forest Oil Co. Bingham 491, tract 47	3	....
L. H. Smith & Sons Lincoln 2	4	....
Smith 1	2	....
E. M. Daly Burns 1	4	....
J. L. Yerdon Bingham 1	4	....
H. E. Camp Estate Bingham 1	5	....
Lewis Emery Rasey 17	7	....
A. W. McCandless & Son McCandless 6	5	....
George W. Bovaird Bingham 391 tract 79	4	....
L. M. & A. M. Neely Middaugh 1	3	....
Petroleum Reclamation Co. Pratt 2	4	....
Crooks Estate Crooks 13	2	....
Wright & Co. Burgess 24	2	....
D. W. Daly Bingham 389 tract 39	3	....
Zane Estate Mehan 1	2	....
R. Landers, Landers 1	2	....
R. C. Lloyd Ekas 1	2	....
B. Devlin Devlin 1	2	....
Venango County—		
S. P. McCalmont Estate Jacobs 11	2	....
Breene & Rhodes Paul & Simmons 38	2	....

Company, Well, Location—	Initial Production Bbls.	Depth
S. Y. Ramage Henderson 49	2	....
Morck Oil Co. Chamberlain 68	3	....
Bonnett & Haun Bissell 5	5	....
E. A. Burch & Co. Porter 85	3	....
G. R. & D. O. Moran, Moran 55	3	....
C. Surrena, Surrena 7	3	....
Venango Oil & Land Co. Fee 218	2	....
W. P. McCray, McCray 66	2	....
Midland Oil Co. Stevenson 41	2	....
Butler County—		
Lang & Co. Pointer 1	¶1½	....
Jamieson Bros. Stovey 3	4	....
Scott-Thompson & Co. English 1	*	....
Richenbrode Bros. Reep 1	2	....
Shidemantle, Gettman & Co. Shidemantle 3	3	....
Clarion County—		
Alum Rock Gas Co. Beichner 2	7	....
Hess 7	2	....
Berlin Bros. Berlin 10	*	....
W. F. Cropp & Co. Porter 11	2	....
Center-Middle Field—		
Pennsylvania Gas Co.:		
Lot 248, tract 890	¶1½	....
Lot 329, tract 889	¶1¼	....
Pequignot & Co. King 14	*	....
Charles C. Carnahan Schoelkopp 9	7	....
Greene County—		
Natural Gas Co. of West Virginia T. F. Rutan 2	350	....
Elliott, Moore & Co. Frank Reese 1	¶1	....
Washington County—		
Coulter & Duncan Alex Hood 1	¶2	....
Lewis & Co. McConnell heirs 1	¶2	....
Fern Field—		
Alum Rock Gas Co. Cummings 1	2	....
Arthurs Field—		
O'Neil Bros. Fee 1	50	....
Eagles Furnace Field—		
Canoe Gas Co. Unknown 1	¶¼	....

NEW YORK

Bolivar Field—		
Jordan Bros. Jordan 1	50	....
Moore & Hogan, Hogan 2	30	....
Producers Oil Co. Fee 2	20	....
Forest Oil Co. Ackerman 1	20	....
Messer & Co. Messer 1	15	....
Shamrock Oil Co. Fee 1	10	....
Hardaman & Thompson E. D. Smith 1	10	....
Ebenezer Oil Co. Ebenezer 2	8	....
Matson & Funk Matson 2	5	....
Alma & Whiteman, Whiteman 1	4	....
Christman Bros. Christman 2	4	....
L. W. Shaner, Shaner 1	3	....
Allegany County—		
Lavens Estate & Co. Lavens 1	3	....
Crandall & Wightman Crandall 1	3	....
Empire Gas & Fuel Co. Empire 1	3	....
Fee 2	2	....
First National Bank of Shinglhouse Fee 1	2	....
A. L. Shaner & Co. Crandall 1	2	....
Wasson & Martin Bros. Wasson 1	2	....
N. K. Nelson Childs 1	2	....

WEST VIRGINIA

Wetzel County—		
Hope Cons. & Ref. Co.:		
Clarence Yeater 1	25	...
John Pyles 1	15	....
T. C. & M. R. Rawe W. A. Morgan 2	*	....
Silver Hill Oil Co. William Moore 1	*	2826
Manufacturers Light & Heat Co. Berley Enans 1	*	....
Putnam County—		
Charleston-Dunbar Nat. Gas Co. Geo. Pine 1	15	....
Wirt 2	*	....
J. H. Trowbridge & Co. John Murray 1	*	....
W. H. Kirtley & Co. C. & O. Railroad 1	13	....
Wood County—		
Bennett & Ekas D. C. Minnier 1	10	....
Power Oil Co. Volcanic tract 109	1	....
Logan County—		
South Penn Oil Co. Yawkey & Freeman 9	¶1	....
Yawkey-Freeman 13	¶1½	....
Roane County—		
G. L. Cabot W. T. Arnett 1	*	....
F. F. Harless 1	¶½	....
Boone County—		
The Pure Oil Co. Lafayette & Co. 16	35	....
Tyler County—		
Holmes Bros. J. D. Holmes 1	2	....
Kanawha County—		
United Fuel Gas Co. L. D. Updegraft 1	¶1	....
Calhoun County—		
White Pine Oil & Gas Co. J. L. Simmons 1	¶2½	....
Cabell oCunty—		
Harshberger Oil & Gas Co. Sarah H. Roberts 4	¶2	....
Clay County—		
Eastern Carbon Black Co. J. Craig & Sons 8	¶5	....
Ritchie County—		
Rice Oil & Gas Co. Bradford 2	*	....

KENTUCKY

Barren County—			
Fred Moore Howard 7	12	472	
Elem Oil & Gas Co. Warder 10	15	503	
Porter & Co. McGlochlin 8	10	....	
Lew J. Emery Sons Co. Depp-Greer 14	10	372	
Star Oil Co. Ritchie 31	8	592	
Alladin Oil Co. Oakes 2	8	....	
Boller & Slemp L. D. Smith 1	*	....	
Kopel & Co. Fisher 1	*	....	
Cumberland County—			
Vedder Oil Co. M. C. Scott 1	100	420	
Wilcox Bros. Isiah Shields 3	75	346	
Freeman & McClintock T. T. Bow 4	25	....	
Cumberland Oil Co. T. L. Giddings 1	*	780	
Owensboro District—			
Pennsylvania-Indiana Oil Co. Jesse Swope 7	25	795	
Jesse Swope 6	*	750	
Panther Creek Oil Co. J. W. Smith 7	5	....	
Muskingum County—			
Mideast Oil Co. C. L. Starkey 1	¶1½	....	
The Sun Co. J. W. Mason 1	*	....	
Morgan County—			
Dunn & Bruns J. A. Lovell 18	1	....	

CENTRAL OHIO

Hocking County—		
Nypano Oil Co. Cobb-Bradley 12	120	....
Chartiers Oil Co. Caroline Walters 3	2	....
Oldtown Oil & Gas Co. Sarah Nutter 1	¶¼	....
Ohio Fuel Supply Co. E. W. Schall 1	*	....
Lorain County—		
Logan Gas Co. Jesse Adams 1	¶1	2799
Empire Gas & Fuel Co. Frank A. Adams 1	*	2800
Athens County—		
Bickle & Co. O. C. Chapman 1	¶1	....
Stewart Oil & Gas Co. W. Louther 1	*	....
Perry County—		
Perry Pet. Co. Gardner-Ellis 4	140	....
Medina County—		
Empire Gas & Fuel Co. Frank A. Welton 1	40	3413
Holmes County—		
Empire Gas & Fuel Co. Dell Waltman 1	*	....
Licking County—		
J. T. Bebout Anna DeLong 1	2	....

NORTHWESTERN OHIO

Auglaize County—		
Boston-Southwestern O. & G. Co. Fred Preiser 6	2	....
Fred Preiser 7	10	....
Crystal Oil Co. J. A. Woehrmyer 2	12	....
E. B. Jack & Co. H. Steve 1	25	....
Triangle Oil Co. Allie Evans 1	¶2	783
Johnson-Magoffin Counties—		
Magoffin Dev. Synd. Julia Salyer 3	7	....
R. G. Gillespie F. M. Moor 3	7	....
Petroleum Exploration Co. W. S. Adams 25	3	....
Diamond Oil Co. Bailey heirs 5	1	....
Wayne County—		
Superior Oil Corp. Deberry 9	20	....
Baker-Jones Oil Syn. Mrs. C. W. Marsh & Thomas J. A. Brown 4	*	....
Warren County—		
Joe Goldberg C. P. Kelley 1	*	550
Baker-ones Oil Synd. Mrs. C. W. Jones 12	*	395
C. E. Foster Stone 6	*	412
Lawrence-Johnson Counties—		
Union Gas & Oil Co. Sanford Lyons 23	30	....
Garrison & Townsend L. F. Sparks 5	15	....
Allen County—		
Work & Son Lyle 11	*	....
Keys Oil Corp. Beam 8	*	381
Morgan County—		
Jeff Allen Lee Owens 5	10	....
Hopkins County—		
Copper Flash Oil Co. Halleman 8	5	512

SOUTHEASTERN OHIO

Washington County—		
Emaline Thornily & Co. Hergert Wymer 6	1	....
Thomas Orndorf D. Hays 1	¶1½	....
Moss Bros. Charles Pugh 1	*	....
Allen County—		
J. O. Hoover & Co. W. F. Barnt 1	22	1319
Mrs. J. J. Graves Graves 1	10	1321
M. P. Colt & Co. M. L. Bowyer 52	10	1313
Mercer County—		
A. W. Neeley & Co. H. J. Stackler 3	15	1190
B. Y. J. Oil Co. Elizabeth Eiche 1	*	1250
Shelby County—		
Slagel & Johnson H. F. Hoelschu 3	*	1212
E. C. Huenke William Egbert 1	*	1250
Ottawa County—		
H. C. Johnson & Co. Harry Pfeiffer 1	25	1370
Hardin County—		
Whipple, Ulrich & Co. Zimmerman 3	20	1504
Sandusky County—		
M. G. Norton & Co. J. Whitney 4	12	1298
Wood County—		
Ohio Oil Co. James Lowe 21	10	1540
Van Wert County—		
Boyd & Stelzer Roller-Henna 7	10	1276
Paulding County—		
Roger L. Dill & Co. E. E. Johnson 2	5	1448
Hancock County—		
Brownell Oil Co. J. Moore 1	¶1	1280
Darke County—		
Lee A. Watson J. C. & E. English 1	*	1300

INDIANA

Gibson County—		
Joe S. Young & Co. George W. Finch 1	25	1509
Pike County—		
Chandler & Rendel F. Chandler 1	*	1067
Sullivan County—		
Billman & Co. C. Wooner 1	*	870

ILLINOIS

Clark County—		
C. W. Titus & Co. Mary McClelland 3	40	1421
John T. Smith & Co. Thomas J. Ramsey 2	25	1427
King-Baldridge & Co. N. B. Lee 4	2	375
Crawford County—		
John Phipps Interests Mary Duncan 1	9	938
Marion County—		
Womac Oil & Gas Co. Mooney & Co. 1	*	800

WILDCATS FROM ALL SECTIONS

Arkansas Wildcats

Company, Well, Location—		Initial Production Bbls.	Depth
COMPLETIONS			
Calhoun County—			
Klotz & Thomas' Forest City Box 1, 14-16-14	*		2810
Nevada County—			
Arkansas Drilling Co.'s (White) Hamilton 1, 34-14-22	*		2511
Union County—			
Minnesota Oil Co.'s Davis 1, 31-16-14	*		2800

ASHLEY COUNTY—Brown et al's Fee 1, 33-16-7, dk. Pine Ferry Oil Co.'s Pine Ferry 2, 1-17-6, dk. Rhodes et al's Bledsoe 1, 20-15-7, dr 150 ft.

BRADLEY COUNTY—Ruth Easley's Brown 1, 21-16-12, rig. Gulf Ref. Co.'s Benson 1, 25-15-9, rig. The Texas Co.'s Saline Lumber 1, 11-17-10, dr 2670 ft.

CALHOUN COUNTY — Brown-Hunt-Murdock Synd.'s Freeman-Smith 1, 25-15-15, dr 1700 ft. Magnolia Pet. Co.'s Calion Lumber 1, 29-15-14, rig. Murdock et al's Eagle Mills 1, 29-12-15, dr 2170 ft.

CLARK COUNTY—Heath Trust's Arnold 1, 12-9-20, rig.

CLEVELAND COUNTY — Dedman et al's Moore 1, 28-9-10, dr 1655 ft.

COLUMBIA COUNTY — Greeson et al's Pearce 1, 3-18-20, dr 1825 ft. Gulf Ref. Co.'s Hines 1, 17-17-18, dr 2845 ft. Hude & Aarnes' Brown 2, Stephens deep test, 13-15-20, milling 2109 ft. Phillips et al's Davis 1, 14-18-21, dr 2775 ft. Pluto Oil Co.'s Dickens 1, 20-18-22, dk; Robinson 2, 23-18-23, to set 8¼-inch 900 ft, td 1000 ft.

HEMPSTEAD COUNTY — Tarver et al's Swafford 1, 14-11-25, dr 1540 ft.

LA FAYETTE COUNTY — Arkansas Fuel Oil Co.'s Allen 1, 18-19-24, set 12½-inch 200 ft. Estes & Oliver's Bodcau 1, 13-18-24, dr 2550 ft. Humble O. & R. Co.'s Bodcau Fee 1, 17-16-23, rig; Bodcau-Reed 1, 16-15-22, dr 1280 ft; Ford 1, 28-16-24, sd 1700 ft. Ken-Saw Pet. Co.'s Red River Valley 2, 3-20-24, dr 2735 ft.

LITTLE RIVER COUNTY — Grote et al's Allen 1, 2-13-29, set 6-inch 2900 ft.

MILLER COUNTY—Copeland et al's Wiseman 1, 36-15-27, dr 1425 ft. Davidson et al's Faulk 1, 29-17-27, dr 1500 ft. Gillespie et al's Fee 1, 2-15-26, dr 2015 ft.

NEVADA COUNTY — Dudley-Thompson Synd.'s Mays 1, 23-14-22, sd 1088 ft. Humble O. & R. Co.'s Smith 1, 7-14-19, rig. Magnolia Pet. Co.'s Johnson 1, 3-15-21, rig. Steele et al's Fincher 1, 9-15-22, sd 1217 ft.

OUACHITA COUNTY — Bondurant et al's Garner 1, 8-18-12, rig. Buffalo Oil Co.'s Morgan 2, 22-15-19, temp abn 2121 ft. Gilliland Oil Co.'s Myar B-5, 30-15-16, set 6-inch 2575 ft. Jones et al's Banks 1, 11-8-25, plugging back to 2200 ft. Lown O. & R. Co.'s Burton 1, 30-15-17, sd 3585 ft. Van Diver et al's Yarbrough 1, 22-14-17, set 12½-inch 204 ft.

UNION COUNTY — Magnolia Pet. Co.'s Chandler 1, 4-19-14, set 6⅝-inch 3134 ft. Ohio Oil Co.'s Arkansas Timber 1, 21-18-10, set 8¼-inch 1705 ft. Wabler et al's Morrison 1, 12-18-14, sw 2282 ft. Ward et al's Goodwin 1, 16-16-14, dr 2625 ft.

North Texas Wildcats

COMPLETIONS			
Baylor County—			
Bridwell & Heydrick's No. 1 Darilek	*		1451
Shaw-Rathke's Mills 2	*		1469
Mills 3	*		1502
Mills 5	*		1428
Throckmorton County—			
Associated Pet. Co.'s No. 4 Reynolds Cattle	¶		499
E. M. Jones et al's Rhodes No. 1	*		1604
Johnson & N. W. Oil Co.'s Batchelor 2	*		1306

DRILLING REPORT

BAYLOR COUNTY—J. S. Cosden et al's Garner 1, sd 1015 ft. Dallas Oil Co.'s Shawver 1, sd 1885 ft. W. H. Dyer et al's Cox 1, sd 2003 ft. Humphrey et al's No. 1 Portwood, dr 645 ft. Maer & Staniforth's No. 4 Mills, dr 1415 ft. McDannald & Smith's No. 1 Upsher County, dr 1438 ft.

CLAY COUNTY—Atlantic City Prod. Co.'s No. 1 Scaling, r 3110 ft. Mills Bennett et al's E. L. Holloway 1, sd 1729 ft. Gulf Prod. Co.'s C. M. Worsham 6, dr 1912 ft, hfw. J. T. Cumley's No. 1 J. M. Green, dr 1220 ft. G. H. Howell et al's No. 1 Edrington Estate, dr 810 ft. B. J. Glenn's No. 1 Bost, machine. Lone Star Gas Co.'s Martin-Waggoner 25, cemented 1667 ft, now dr out plug 1668 ft; Holloway 14, will test at 1863 ft. Navarro Oil Co.'s No. 1 Holloway, fsh 1756 ft. John O'Neil et al's J. F. Alcorn 1, fsh 3369 ft.

COOKE COUNTY—Big Indian Oil & Dev. Co.'s F. Lester 1, cemt 8¼-inch cas 3445 ft, drilled out plug and water filled hole to 3000 ft, now trying to set 6⅝-inch cas after drilling to 3453 ft. Elliott & Wallace's E. M. Osborne 1, sd 595 ft. Lanier et al's A. Hyman 1, dk blown down, rebldg. Jenkins & Davis' No. 1 Mattie McCain, lcn. Leonard & Jones' Hamilton 1, sd 1885 ft. Pettitt et al's Nelson 1, sd 2620 ft; M. F. Williams 1, dk. Porter & Holmes No. 1 Pierce, dr 695 ft. Sun Oil Co.'s A. M. Ludeman 1, near Marysville, dr 165 ft. Terrell Drilling Co.'s I. F. Pierce 1, B. Lusk sur, spd. W. J. Rawson-Lyles et al's Cecil Aldredge 1-A, dr 3405 ft. Red River Drilling Co.'s Jones 1-A, sd 2180 ft. H. H. Simpson et al's G. D. Houston 1, sd 580 ft.

DENTON COUNTY — McNeil & Blackstock's T. Wright 1, sd 1640 ft. Gainesville Synd.'s K. Fontenberry 1, fsh 1380 ft.

FOARD COUNTY — Murchison-Fain Co.'s W. S. Bell 1, dr 1695 ft. Central Oil Interests' (G. E. Fagg et al) Burress 1, std rig. The Texas Co.'s McCoy 1, fsh bailer 2208 ft.

GRAYSON COUNTY—The Texas Co.'s G. W. Cannon 1, tested sw 2808 ft, r 2960 ft now. Johnson et al's Marshall 1, sd 1100 ft. Whitesboro Oil & Dev. Co.'s Jewell-Anderson 1, sd 1350 ft. Zee-Tex Oil Co.'s Griffith 1, sd 2340 ft.

HARDEMAN COUNTY — Benedum-Trees' (was Sigler Oil Co.) Wheat 1, dr on iron 2625 ft, td 2770 ft.

HASKELL COUNTY—H. H. Adams et al's T. Proctor 1, A. Rodriquez sur, made three million feet dry gas at 1662-65 feet, tested oil sand at 1723 ft, bailed small amount of oil and would make small well, now underreaming 6-inch to set below cave at 1870 ft. Herbert Oil Co.'s Malone 1, fighting cave at 850 ft. Kouri et al's No. 1 Coush, sd 1490 ft; No. 2 Ballard, fsh 1003 ft. Meyers et al's Stoker 1, dr 1417 ft. Weirt & York's No. 1 Colbert, dr junk 2310 ft. Wolf et al's No. 1 Colbert, dr 200 ft.

JACK COUNTY—Humphreys Corp.'s Campbell 1, Near Avis, no report. Robinson et al's Marshall 1, sd 710 ft. Washington Oil Co.'s Gray 1, no report. Phillips et al's Wilson 1, sd 200 ft.

MONTAGUE COUNTY—Humphreys Corp.'s W. W. Jones 2, fighting gas craters, td 883 ft. W. A. Morris et al's J. W. Maddox 1, lcn. Newblock Oil Co.'s Maddox 2, dr 860 ft. E. L. Smith Oil Co.'s Maddox 1, steel dk. Pure Oil Co.'s W. W. Jones No. 1, wo, dr 1968 ft; 1-B, dk blown down. Texhoma Oil & Ref. Co.'s Rowland 1, std 832 ft, 600 feet of oil in the hole; J. E. Lemons 1-A, plugging back to 800 ft, td 1902 ft; Howard 5, sd 1837 ft. The Texas Co.'s W. W. Jones 1, cementing 440 ft; M. H. Salmon 1-B, sd for repairs 445 ft. Universal Oil Co.'s S. P. Steadman 1, dk.

THROCKMORTON COUNTY —Associated Pet. Co.'s No. 1 Cummings, dr 155 ft; No. 1 Putnam, sd 960 ft; No. 3 Reynolds Cattle, dr 235 ft; No. 1 Storey, dr 2665 ft. Black Cat Oil Co.'s Gaither 1, dr 1410 ft. Domestic Oil Co.'s Goeber 1, sd 1600 ft; Howsley 1, sd 2050 ft. Hogger Oil Corp. et al's Parrott 1, dr 495 ft; No. 1 Richards, sd 1470 ft; Reynolds Cattle Co. 1, no report. Humble O. & R. Co.'s A. S. Harrison 1, dr 2135 ft; Harrison 2-B, dr 62 ft; Stubblefield 2, rigged up. Brice Larkin et al's Richards 1, dd, dr 2250 ft. Magnolia Pet. Co.'s L. B. Davis 1, r 1115 ft. Red Bank Oil Co.'s Graham 1, dr 2565 ft. Reiter-Foster Oil Corp.'s Stubblefield 2, dr 2308 ft. Richardson Bros. et al's Thomas 1, sd 1335 ft. Stiles & Schimmel's Stacey 1, no report. Schimmel Oil Co.'s W. R. Kelly 1, flowed and swabbed 100 barrels oil and some water 2985-3007 ft, no report this week. Schimmel et al's Putman 1, sd 955 ft. E. L. Smith Oil Co.'s Burkhalter 1-A, sd 1605 ft. Texhoma et al's Graham 1, dr 1200 ft; Reynolds 3, dr 1506 ft. Tucker et al's Reynolds Ranch 1, sd 715 ft.

Texas Panhandle Wildcats

Company, Well, Location—		Initial Production Bbls.	Depth
COMPLETIONS			
Hutchinson County—			
New Domain Oil & Gas Co.'s Barton 1		100	3090
Wheeler County—			
Mid-West Exploration Co.'s G. W. Porter 1	*		2484

DRILLING REPORT

CARSON COUNTY — American Ref. Co.'s Burnett 1-C, fsh for cas, making some gas 2800 ft; Burnett 1-A, dr 1100 ft; Burnett 1-E, sec 129, (was Danciger) preparing to co to deepen, td now 3128 ft. Crosbie Oil Co.'s Burnett 3, dk. Culbertson Bros. et al's Burnett 1, dr 710 ft. Magnolia Pet. Co.'s Burnett 1-A, lost returns 2800 ft. Pumping mud. Marland Oil Co.'s Burnett 2, dr 2948 ft, show of oil at 2942 ft; Burnett 3, dr 2520 ft; Burnett 4, dr 685 ft. Olson et al's Burnett 1, spraying sw with oil color, preparing to std at 3060 ft. W. W. Silk et al's Burnett 4, rig burned, waiting on orders at 2755 ft; Burnett 5, lcn. The Texas Co.'s Burnett 6, dr 2700 ft; No. 5 Burnett Estate, wo, r cas to set at 2922 ft.

COLLINGSWORTH COUNTY—Continental Oil Co.'s Hughes Estate 1, casing parted at 1130 ft, now dr by pipe.

COTTLE COUNTY—T. J. Woodley et al's A. C. Dulaney 1, sd 3005 ft; Dulaney 2, dr 560 ft.

DALLAM COUNTY—H. A. Martin et al's James 1, junked hole, 1640 ft, now trying to pull casing.

GAINES COUNTY—Frank Phelps & Mundy's M. C. Lindsey 1, fsh 840 ft.

GRAY COUNTY—A. R. Anderson-Book et al's Beaver-Bradford 1, dr 2830 ft. Danciger Oil & Ref. Co.'s J. B. Bowers 1-A, dr 2876 ft. W. H. Holmes' J. B. Morse 2, sd 3147 ft. Osborne & Daniel's No. 1 Allie Byrum, moving in timbers. Wilcox Oil & Gas Co.'s Coombs-Worley 1, co to deepen, td 2874 ft.

KING COUNTY—Hoffer Oil Corp.'s Patten 1, sec 44, blk "A" Thompson sur, sd for boiler 375 ft.

HUTCHINSON COUNTY — American Ref. Co.'s Weatherly 1, dr 1475 ft. W. T. Coble et al's Whittenberg 1, dr 2565 ft. Currie Bros. & J. R. Phillips' No. 1 H. E. Smith, lcn. 330 ft S and 350 W of NE cor cor of SE¼ sur 14 M. & C. blk. Dixie Creek Oil Co.'s Smith 2, trying to drill by tools 2730 ft. F. D. Gibson's No. 1 Whittenburg, lcn, 860 ft N and 620 ft E of SW cor, sur 62, H. & T. C., blk 46. J. H. Middleton et al's J. Weatherly 1, deepening to 3109 ft before drilling in, estimated 2 bbls oil per hr. Panhandle Ref. Co. et al's Dial-Perkins 2, dr 1025 ft; Dial-Perkins 3, dr 1225 ft. J. R. Phillips et al's W. L. Kingsland 1, dr 2515 ft; Kingsland 2, rigging up. Tex-O-Oil Co.'s Johnson Bros. 1, dr 1645 ft. Roxana Pet. Corp.'s H. E. Smith 1, dr 830 ft. Traveler's Oil Co.'s No. 1 Kingsland, lcn, 495 ft N and 617 ft W of SE cor of SW¼ of NE¼ sur 6, M. & C. blk. Twin-Six Oil Co.'s Kingsland 1, dr 1025 ft. Western Enterprise Oil & Gas Co.'s Smith 2, spudding.

MOORE COUNTY—Amarillo Oil Co.'s Masterson 1-A, fsh cas 2360 ft.

POTTER COUNTY—Amarillo Oil Co.'s L. Bivins 4-A, dr 1800 ft.

ROBERTS COUNTY—Phil Engle's No. 1

Mrs. Ledrick F-8, running 6⅝ cas, td 3711 ft, small showing oil.

WHEELER COUNTY—Angus et al's Ember 1, had showings of gas at 2125 ft, sd 2148 ft. Best Oil & Gas Co.'s Tindall 1, r 2205 ft. Globe Oil Co.'s Williams-Laycock 1, reset 6⅝-inch, now running cas to shut off gas. Midway Oil Co.'s William-Laycock 1, dr 510 ft. Mid-West Exploration Co.'s W. C. Company 1, rigging up. J. J. Rook et al's H. C. Phillips 1, set 8¼-inch cas, dr 1580 ft. W. D. Sheddon et al's B. F. Westmoreland 1, r 8¼-inch cas in salt and shale 2340 ft. Texhoma Oil & Ref. Co.'s J. H. Jackson 1, dr out cement, show of oil and gas 2241-43 ft. Vaughan & Pendleton's No. 1 O'Gorman Bros., old well known as Simmons well, co at 900 ft.

Coastal Wildcats

COMPLETIONS

Company, Well, Location—	Initial Production Bbls.	Depth
Calcasieu Parish—		
Rycade Oil Corp. Calcasieu 1	*	4023
Fort Bend County—		
Rycade Oil Corp. Nash 4	*	1597
Fritz Meier 2	*	1703

DRILLING REPORT

ATASCOSA COUNTY—Rio Bravo Oil Co.'s Cortinas 2, on the Cortinas 80-acre tract near Anchorage, dr at 2573 ft in tough gumbo.

BRAZORIA COUNTY — Thrift-Moore's Munsen 1, at Bailey's Prairie, 6 miles W of Angleton, H&TC sur, dr at 1485 ft.

CHAMBERS COUNTY — W. C. Moore et al's Blanke 1, on Blanke tract, NE quarter H&TC sec 39, 1200 ft W of E line and 500 ft S of N line, temp. sd at 650 ft. C. T. Rucker's Fisher 1, about 7 miles NE of Goose Creek, waiting for test at 2220 ft. Barrow et al's Boden 1, on the S line of Jackson sur in Boden league, dr at 1250 ft.

FORT BEND COUNTY—Gulf Prod. Co.'s Moore 5, John Moore lease, rigging up. Rich Development & Pet. Co.'s Moore-Hager 2, at Big Creek, 300 ft NE of No. 1, SE side of dome, waiting on rig. Rycade Oil Corp.'s Fritz Meier 2, 1550 ft E of SW cor and 200 ft N of S line of F. Meier 207.7-acre tract, abn at 1703 ft in anhydrite. J. Meier 2, making lcn. Nash 4, offset to Fritz Meier 2, abn at 1597 ft. Texas Co.'s G. W. Armstrong 1, James Scott sur, 50 ft to N and S line SW of Needville, dr 3540 ft; Robinson 13, at Blue Ridge, dr at 3540 ft. Marland Oil Co. of Texas' Moore 1, 7899 ft S and 46 degrees E and 5083 ft W and 44 degrees N of most western N cor of the Antonio Balle sur, dr at 3325 ft in gumbo.

GALVESTON COUNTY—Gulf Prod. Co.'s George E. Smith 3, at High Island, 300 ft from No. 2, drilling at 2100 ft; George E. Smith No. 4, rigging up.

HARDIN COUNTY—Vacuum Oil Co.'s R. Teel 1, at Saratoga, 350 ft N and 200 ft W of the most easterly SE cor, drilling at 3987 ft.

HARRIS COUNTY—Texas Co.'s Warren 4, near Hockley, dr at 3480 ft in gumbo; Warren 5, 700 ft N of Warren No. 3, dr at 400 ft in gumbo. Rycade Oil Corp.'s Norsworthy 1, dr at 2907 ft in hard sand and lime. Retrieve Oil Co.'s Sid Westheimer 1, 300 ft from N and W lines on Wiley Smith sur, 7 miles NE of Houston, preparing to test at 2618 ft, oil showing. Rio Bravo Oil Co.'s Settegast 1, at Pierce Junction, 700 ft W and 200 ft S of NE cor of Settegast 100-acre lease, dr at 3426 ft in gumbo.

JACKSON COUNTY—Vanderbilt Petroleum Co.'s Seliner 1, 4 miles N of Vanderbilt, C. W. Hall subdivision of Harwood Burns ranch, temporarily shut down at 3283 ft. Houston Oil Co.'s Rodgers 1, no report. Jackson County Synd.'s Drussel 1, standing at 2650 ft; Putnam 1, sd at 200 ft; Classen 1, temp sd at 25 ft; Fuqua 2, dr at 1375 ft.

JEFFERSON COUNTY—Houston Oil Co.'s Fanny Crow 1, dr at 2806 ft. Gulf Prod. Co.'s Thomas 3 at Fannette, 1278 ft E and 1600 ft W of SW Cor. of E. Thomas 445-acres of W. H. Smith lease, near Hampshire.

LIBERTY COUNTY — Liberty Prod. Co.'s C. F. Seaberg 1, 3200 ft S and 400 ft W of SW cor and SE cor H&TC sur No. 8, no report.

MATAGORDA COUNTY — Rycade Oil Corp.'s Gray 3, at Markham, 1050 ft S of NE cor and 500 ft W of E line, blk 2, W. H. Gray land, dr at 3734 ft in sand and lime. Sheppard Mound Oil Co.'s Hawkins 2, near Hawkinsville, dr at 2000 ft in hard gumbo.

ORANGE COUNTY — Sinclair Oil & Ref. Co.'s Turner 1, 1211 ft S of NE corner J. W. Turner 80-acre tract, dr 2840 ft in gumbo.

WALKER COUNTY—C. N. Haskell's Phail 1, 9 miles NW of Huntsville, no report.

LOUISIANA GULF COAST — Rycade Oil Corp.'s Calcasieu 1, in Calcasieu Parish, abn at 4023 ft; Hooks 1, at Lake Arthur, dr at 1117 ft in gumbo. Marland Oil Co. of Texas' Phenix Development Co. 1, at Lockport, 650 ft E and 150 ft S of NW Cor. of SW Sec. 16, dr at 3031 ft in hard rock. Ohio Oil Co.'s Champaign 1, St. Martin Parish, sec. 94, tws 10, range 6, no report. Vacuum Oil Co.'s Phoenix B-1, 1286 ft E, 400 ft S of NW corner section 16, setting casing 5570 ft; Phoenix C-1, 450 ft S and 825 ft E of NW cor of SW quarter of NW quarter, 4030 ft in rock; Farquar 2, 150 ft S and 100 ft E of NW cor of SW quarter of SW quarter of sec 9, dr 4061 ft in shale; Freiberg & Wolf 1, 780 ft S and 685 ft E of NE cor of SW quarter of sec 9, dr at 2463 ft in shale; Miller 3, 694 ft W and 300 ft N of SE cor of NW quarter of sec 9, dr at 4227 ft in shale; Miller 4, 870 ft E and 150 ft S of NW cor of SE quarter of sec 9, temporarily sd at 2695 ft; Lockmore 3, 1225 ft E and 300 ft N of SW cor of the NW quarter of sec 10, dr at 935 ft in gumbo; Frien Lake State 1, Calcasieu Parish, 1190 ft S and 200 ft E of NW cor sec 15, bldg dk.

San Antonio District Wildcats

BEXAR COUNTY—United North & South Oil Co.'s Nos. 1 Kelly, dr; 1 Brown, lcn; 1 Tiller, dr; 1 and 2 Lee Byrd, dr; 1 Mills Mercer, dr; 1 R. S. Shanklin, dr. Wilford & Associates Synd.'s No. 1 Linam, lcn. P. & H. Drilling Co.'s No. 11 Merriwether, set casing. Wilford-Holmes-Read's No. 1, dr 1200 ft. P. M. Armstrong's No. 1, dr. Thrasher et al's No. 1 Field, dr. J. G. Pundt et al's No. 1 Field, dr. Patton's No. 1 Glover, dr at 2100 ft. Armstrong Bros.' Thomas, dr at 950 ft in gumbo shale—good oil showings at 800 ft. O. F. Stair No. 1, set casing. Gulf Prod. Co.'s Nos. 19, dr; No. 16 Beaty, abn; Nos. 11 and 12, cement casing at 1225 ft; 13, Brewer, producing 5000 bbls at 1300 ft; 15 Cardwell, producing 250 bbls at 1600 ft. Evans Oil Co.'s Nos. 1 Cardwell, dk; 1 H. F. Brewer, dr. Sun Oil Co.'s Nos. 18 Gomillion, dr; 19, 20, 21, 22, dks; 1 Norman Martindale dr; Stacy, no report. Payne-Boyd Schawe's No. 1, dr 1133 ft; No. 1 Stacy, dr 1450 ft in lime. Magnolia Pet. Co.'s Nos. 18 Beaty, cemented; 8 Beaty, producing 400 bbls at 1550 ft; 9 Beaty, producing 400 bbls at 1550 ft. J. E. Walsr's No. 1 Upwright, dr below 1840 ft. Allen Bu man's No. 1 Bailey, reported good showing. Humble Oil Ref Co's Nos 4, 5, 6, 7, 9, 10, 12 A. F. Brewer, dr. Marland Oil Co.'s Nos. 4, 7, 9, 10 F. A. Gomillion, dr. Randolph & Pope's No. 2 Beaty, cemented 1462 ft. Davis & Mitchell's No. 1 L. A. Cardwell dr 1600 ft. Armstrong's No. 1 Riddle, dr 2400 ft. E. B. Smith Nos. 1 C. M. Davis, dr; 2, dr; 3 Irvin Schroder, lcn. Witherspoon Oil Co.'s No. 1 Shesser, abn at 2190 ft. Nos. 1 Cardwell producing 1700 bbls at 1557 ft; 7 Cardwell, producing 1500 bbls at 1555 ft. Eagle Drilling Company's Nos. 2 Cardwell, producing 250 bbls at 1600 ft; 2 Dannelly, producing 200 bbls at 1550 ft. Wilford Schroeder's Nos. 1, no report on formations, good showings at 1000 ft; 1 Walter Holmer, dr 1400 ft. Bender's No. 1, dr 1500 ft. Lucey Pet. Co.'s C. 3 Palmer, resumed operations, oil showings. C. M. Cope's Nos. 5 Beaty, abn; Riddle 2, dr 1000 ft.

DUVAL COUNTY — Co-Operative Drilling Co's Nos. 1 Dinn, sd 2070 ft; 2 Survey 457, spudded in. Associated Oil Co.'s No. 1 Sutherland, dr 1080 ft in broken lime. Mesquite Oil Co.'s No. 1, setting liner. Booth Interests' No. 1 W. R. Peters, lcn. O. W. Killam's Nos. 1, 3 Benavides, sd 2650 ft; 4, dr 1621 ft; 5, 25 million cu. ft dry gas at 1750 ft. Humble Oil Co.'s Nos. 1 Pusch, r to set 6-inch casing at 1621 ft; 4 Walsh, dr. United States Gas & Oil Co.'s No. 3 Peters, dr.

GUADALUPE COUNTY — Magnolia Oil Co.'s Nos. 13, 7, 14, dr. Weinert et al's No. 1 Nolte farm, lcn. Stebbins Oil Gasoline Co.'s No. 1 Lenz, dk. Scrivener's No. 1 Vetter, dr 1600 ft. Southern Extension Synd.'s No. 1 William, dr 1600 ft. M. O. Rayor's No. 1 Jessie C. Lipscomb, dr. McClannahan's No. 1 Herman Lenz, reported good oil showings at 2000 ft. Joe Dunning et al's No. 1 Hugo Vetter, dr. J. M. Davis et al's No. 1 Koch, sd for water; 1 Augusta Hoese, sd York Creek Oil Co.'s No. 1 Fulshear, dr. Atlantic Oil Co.'s No. 1 Fulshear, dr. Atlantic Oil Co.'s No. 1 Blumberg, dr in Eagleford.

JIM HOGG COUNTY — Buchanan-Plateau Oil Co.'s No. 4. Rydal-Rycade Oil Co.'s No. 1 W P. Allen, sur 21, dr 2990 ft. Simms Oil Co.'s No. 1 Weed, sur 84, dr. J. W. Pippen et al's No. 2, reported showing oil. Plateau Oil Co.'s No. 5 Martinez, sd 2066 ft. Daniels & English No. 1, blk 8, sur 1617 ft, dr. Kitselaman & St. Albans Interests No. 19 and 20 Vela, dks. Texas Co.'s No. 1 Jennings, set casing at 902 ft. Alexander et al's No. 1 Vela, dr 1650 ft in shale. Big Bend Oil Co.'s No. 5 Martinez, cemented 6⅝-inch casing at 2030 ft; 6, dr below 1050 ft. Buchanan et al's No. 4, set casing at 1051 ft. Chenault et al's No. 4, set casing at 1051 ft. Grayburg Oil Co.'s No. 1 Weil, sd for water at 1500 ft. Wolcott-Morgan et al's No. 1, sur, dr. Russell-Hoffman's Nos. 1 Davis Vela, dr; 1 Givens, rigging up. C. A. Beaucamp's Nos. 1 Vela, sur 580, dr 1200 ft. Andrews Pet. Co.'s No 1 M. S. Bank, setting up. Magnolia Pet. Co.'s Nos. 1, setting up; 6 Martinez, setting up. Mirando Oil Co.'s No 11, set casing at 2048 ft. San-Tex Oil Co.'s No. 1, sur, 262, dr. Texo Oil Co.'s No. 4 Lopez, dr 1978 ft. Weber Oil Co.'s No. 4 Holbein, dr 3745 in gumbo. Plateau-Wheat's Nos. 4, dk; 4 and 5, lcns. O. W. Killam's Nos. 7, abn at 2076 ft; 9 and 10, dks; 11, producing 100 bbls; 12 dr 1800 ft in shale and lime; 13, dr. Plateau-Texas-Pacific Nos. 2, dr; 6, set casing at 2002 ft. Rydal Oil Co.'s No. 2, dr. Eliott-Texas-Pacific's No. 2, dr. B. Alexander's No. 1, blk 1, sur 580, El Peyote Grant, producing 60 bbls.

ZAPATA COUNTY—H. J. McMullen's Nos. 1, 2 and 3 Sepapio Vela, lcn. Texas Co.'s No. 1, dr in sand rock at 3211 ft; No. 1 Jennings, dr 3060 hard shale. Chandler-Giers' No. 1, sur 2, reported abn at 2225 ft. R. K. Bateman et al's No. 1, sur 617, dr.

Central West Texas Wildcats

COMPLETIONS

Company, Well, Location—	Initial Production Bbls.	Depth
Brown County—		
Mendenhall et al's Newton 9, ...	15	1260
Moore-Wilson's No. 3 Baxter	260	1305
Urban et al's Finley 1	15	2099
McCulloch County—		
Northwest Co.'s No. 1 Pumphrey ...	*	1155
Kent County—		
Greenwood & Marland's J. E. Kuteman 1	*	3517
Reagan County—		
Big Lake Oil Co.'s University 35 ..	445	2844
Texon Oil and Land Co.'s University 18	1984	2922
University 21	904	2922
Sterling County—		
George Northrup & Hall's Elwood 1	*	3202
Tom Green County—		
Chas. Denny et al's C. A. Broom 1	*	1000

DRILLING REPORT

BROWN COUNTY — Adams-Moody et al's Newton 1, r 1500 ft. Anderson-McCamey's Williams 1, spudding. Cal-Bro Oil Synd.'s Prater 2, dr 600 ft. Canyon Oil & Cas Co.'s Ellsberry 4, shot at 1416 ft, small show of oil, now dr. Gillman et al's Newton 11, rig; Newton 15, dr 600 ft. Gillman-McMurray's Henry 1, dr 550 ft; Teston 7, spudding; Teston 6, dr

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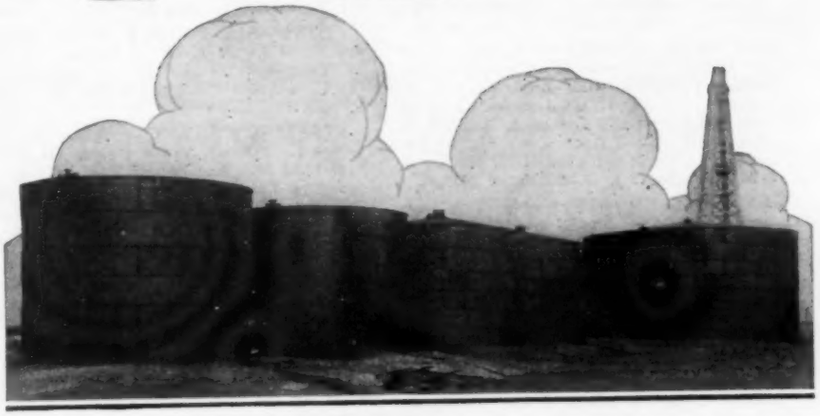
No. 11 of a Series



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Black Sivalls & Bryson
INC.

BARTLESVILLE ~ OKLAHOMA

Branch offices in all principal active fields

1262 ft. show oil; Chambers 2, fsh 815 ft. Gray's No. 1 Lewis, lcn. J. K. Hughes et al's Arledge 2, spudding; No. 1 Moore, dr 711 ft. Halmack Oil Co.'s Hubbard 1, dr 314 ft. Howell & Houseman's Helms 1, dr 1120 ft. Ingleright et al's Eubanks 1, fighting cave 1275 ft. McCamey et al's Clark 1, rig. Mahlstedt Oil Co.'s No. 1 Madison, moving in machinery. Mendenhall et al's Newton 10, rig. Moore et al's Baxter 4, dr 490 ft; Baxter 3, drilling 940 feet. Moak-Wakefield's No. 1 Wright, drilling 700 feet. McLester Oil Co.'s No. 1 Clark, fsh 605 ft. Moak-Texas Oil Co.'s No. 3 Newton, spudding. Moore-Wilson's No. 4 Baxter, dr 860 ft. Baxter No. 6, spudding; No. 7 Baxter, spudding; No. 1 Kilgore, spudding. Olympia Oil & Ref. Co.'s Gilliam 3, dr 1200 ft. Prairie Oil & Gas Co.'s Armstrong 1, shot 3080 ft, small show of oil. Slick et al's No. 1 Windham, dr 240 ft. Simms Oil Co.'s Gaines 1, sd 1485 ft. Stone et al's Byrd 1, sd, made 15 bbls oil at 1337 ft.

CALLAHAN COUNTY — Brannon & Murray's No. 1, rig; Bowden-Dehurst et al's Coats 1, dr 295 ft. Cranfill-Reynolds' No. 1 Townsite, spudded and sd; No. 1 School Lot, dr 1424 ft, show oil. Canyon Oil & Gas Co.'s Barr 2, dr 575 ft. Dutton et al's No. 7 Cathey, rig; No. 1 Hartwell, sd 795 ft. Harris & White's No. 1, dr 500 ft. Lowe-Delaney & Carter's Townsite 1, dr 1055 ft. Mitchel & Shadboldt's No. 1 Childress, lcn. Nichols et al's Davis 1, sd 2460 ft. Mogul Oil Corp.'s No. 1 McDermott, spudding. Moore's No. 1, dr 725 ft. Neeb & Stone's No. 1, rig. Quaker Oil & Gas Co.'s Gilliland 1, rig. Shults No. 1 Strahan, dr 390 ft. Slick's No. 1 Haley, spudding. Stacey & Vaughan's No. 1 Hall, lcn. Wakefield et al's No. 1, dr 705 ft; Warren No. 1, dr 300 ft. Weiler Bros. No. 1, rig up.

COLEMAN COUNTY—Canyon Oil & Gas Co.'s Harris 1, co 1110 ft. Duncan et al's Gray 1, testing 2560 ft, showing oil. Morrison & St. John's No. 1 Young Brothers, rig and tools in. The Texas Company's No. 1 Hall et al, lcn.

PALO PINTO COUNTY — Burton-McKee Oil Corp.'s Strawn Coal Fee 4, drilling lead cuttings to shut off water from 3070 ft, td 3800 ft. Crawford-Singleton's L. Smith 1, sd 3200 ft. Dalton et al's No. 1 Perkins, sd 1810 ft. Jack Dalton Oil Co.'s Dalton 6, fsh tools 4010 ft. Hughes et al's Dalton 1, sd 1100 ft. E. T. Hart et al's Cardwell 2, moving in standard rig, standing at 2050 ft; No. 2 Hart, sd 2600 ft to build standard rig; No. 10 Hart, dr 2225 ft; No. 1 Orme, sd 2060 ft. Moore-Sneboldt's Slemmons 1, set 8-inch cas 1512 ft; Stuart 3, lcn. Nelson Oil Synd.'s Owens 1, sd 1505 ft. Pender Prod. Co.'s Slemmons 2, 200 ft of oil in hole, sd 3665 ft, wo; Slemmons 3, dr 2675 ft; Rasmussen 2, rig. T. P. Coal & Oil Co.'s No. 148 Stuart, dr 205 ft. Westheimer & Daube's Fee 1, and 2, lcns. Upham Gas Co.'s No. 4 Belding, pulling cas to drill deeper, 1000 ft; No. 2 Chestnut, dr 2125 ft.

BREWSTER COUNTY — Green Valley Oil Corp.'s J. P. Wilson 1, sec. 8, blk 212, waiting for cement to set 2200 ft. Werlen Pet. Co.'s No. 1 J. P. Wilson, shot waiting for cement to set 2150 ft.

PARKER COUNTY—Monroe et al's No. 1 Davis, spudding. English et al's Peters 1, co 950 ft. Swensondale Oil Co.'s No. 1 Evans, co 2700 ft.

COKE COUNTY—West Virginia Oil Marketing Assn.'s J. R. Mims 1, pulling pipe to abn 3513 ft.

CRANE COUNTY — Penn-Tex Dev. Co.'s Jax Cowden 1, bldg dk. Cordona Oil & Potash Co.'s No. 1 Jax Cowden, dr 1960 ft. Texas Development Co.'s Jax Cowden No. 2, sec 14, blk "X", sd 2680 ft.

CROCKETT COUNTY—Humble Oil & Ref. Co.'s & Marland's L. P. Powell 1, flowing 30 bbls oil, sd 2647 ft; L. P. Powell 2, bldg rig. Humble's Harris 1, bldg rig. Gulf Prod. Co.'s State-Powell 1, bldg rig. Cumberland Oil & Gas Co.'s Couch 1, sd for water well. J. C. Cook (Wilcox) et al's University 1, sec 14, blk 29, r 900 ft. Crockett Drilling Synd.'s J. M. Shannon No. 3, dr 250 ft; No. 2, dr 225 ft; Robert Massey 1, fsh 2815 ft. Ely et al's No. 1 Noelke, lcn. Jacobs & Williams' (was Red Ball) University 1, sec 5, blk 29, sd 100 ft. Marland Oil Co. et al's W. C. Corbett 1, lcn in sec 19, blk B-2, G. C. & S. F. RR sur; University 1, lcn in sec 26, blk 31; University 1, lcn in sec 5, blk 30; J. S. Todd 1, lcn in sec 17, blk "W-X", G. C. & S. F. RR sur. Wm. Shaffer et al's University 1, sec 9, blk 47, rigged up, digging water well.

CULBERSON COUNTY — The California Co.'s Watkins et al's 1, fsh 15½-inch bit 943 ft. Grisham et al's Grisham 1, dr 2200 ft. Pure Oil Co.'s Mrs. G. H. Guard 1, moving in rig.

JEFF DAVIS COUNTY—Bill Little-Claude Byler's Denton 1, 15 miles W of Valentine, lcn.

GARZA COUNTY—Gulf Prod. Co.'s J. B. Slaughter 1, sec 18, J. Hays sur, dr 2592 ft. Marland Oil Co. et al's Connell 1, spudded. S. A. Sloan et al's No. 1 Connell, material on lcn. Armeda Oil Co.'s No. 1 Connell, sd 600 ft. B. V. Blackdell's No. 1 J. M. Boren, sd 2435 ft.

GLASSCOCK COUNTY — Gulf Prod. Co.'s L. S. McDowell 2-C, sec 30, blk 34, dr 611 ft. Marland Oil Co. et al's J. Currie Estate 1, lcn in sec 29, T P. Ry sur, blk 32, E-4-s; G. Mook 1, lcn insec 27, T. P. Ry sur, blk 33 T-E-S.

HOWARD COUNTY—Deep Rock Oil Co.'s W. T. Scott Hyman 1, in sec 88, blk 29, W. & N. W. Ry sur, dr 275 ft. Marland Oil Co. et al's M. H. O'Daniel 1, spudded in sec 34, blk 30, T P Ry sur T-1-S.

IRION COUNTY—Chas. Denny et al's D. E. Hughes 1, sd 1470 ft. W. A. Stout et al's J. D. Suggs 1, no report. Virginia-Texas Pet. Co.'s Case 1, spudding in sec 1227, GC & SF Ry sur.

LOVING COUNTY — Rio Grande Oil Co.'s Sid Kyle 1, moving in tools, sec 12, blk 57, TP Ry sur, P-V Pet. Co.'s Russell 1, running cas, 3920 ft.

MARTIN COUNTY — Humble Oil & Ref. Co.'s C. C. Slaughter 1, sec 8, blk 35, dr 3890 ft.

MIDLAND COUNTY — Rook-Zimmerman's M. E. Hill 1, sec 8, TP Ry sur, blk 37, dr red beds 2500 ft.

MITCHELL COUNTY—The California Co.'s Abrams 9, swabbing 45 bbls 3032 ft; Butler No. 2, swabbing 17 bbls 3081 ft; Missouri State Life Fee 1, dr 2756 ft; Morrison 14, dr 408 ft; H. C. Miller 1, dr 2920 ft, showing oil; Womack 1, dr 2780 ft. R. G. Barnum's G. A. Henshaw's Scott 1, dr 600 ft in sec 32, SP Ry sur, blk 17. Eastland Oil Co.'s No. 1 Paul Elder, lcn; Keynard 4, dr wet hole 1015 ft. W. B. Green et al's No. 1 Ellwood, lcn. M. Snyder et al's A. R Keith 1, sec 10, blk 28, dr 1540 ft. S. A. Sloan et al's Scott 1, preparing to abn 3600 ft. Magnolia Pet. Co.'s Womack 1, dr 2350 ft; Badgett 1, swab 20 bbls 3107 ft; Mary Foster 1, fsh 2795 ft.

PECOS COUNTY—Adams Oil Co.'s Devlin 1, 17 miles NW Fort Stockton, sd 1004 ft. Gulf Prod. Co.'s White Baker 1, sec 85, blk 194, dr 4015 ft. Dixie Oil Co.'s Sherbine 1, sec 51, GC & SF Ry sur, blk C-4, dr 450 ft. West-Tex Exploration Co.'s No. 1 Massey, spudded and sd.

REAGAN COUNTY—Big Lake Oil Co.'s University 17, dd, resetting boiler, sd 2794 ft; University 20, dr 2620 ft; University 30, dr 820 ft; University 31, fsh 2840 ft; University 32, dr 2630 ft; University 33, dr 2842 ft; University 34, dr 2726 ft; University 36, fsh 2535 ft; University 37, skidding rig; University 39, fsh for bit 2545 ft; University 40, dr 2660 ft; University 41, dr by bit 1915 ft; University 42, cementing 2819 ft; University 43, dr 500 ft; University 44, rigging up; University 45, dr 535 ft; University 46, dr 1055 ft; University 47, 48, 49, 50, lcns. H. D. Camp et al's University 1, sec 34, blk 11, sd 200 ft. Gulf Prod. Co.'s University 2, sec 1, blk 1, dr 2855 ft. B. H. Cogdell et al's University 1, sec 23, blk 8, dr 2938 ft. W. H. Dunning et al's J. D. Suggs 1, sec 185, TP Ry sur, blk 2, changing dr line 2803 ft. Ben Simon et al's University 1, blk 11, spudding 300 ft. Marland Oil Co. et al's M. J. Wilson 1, sec 1199, CSD & RGNG Ry sur, rigged up and sd. L. V. Tannehill et al's University 1, sec 15, blk 11, rig completed and tools moved in. Texon Oil & Land Co.'s University 12, dr 2842 ft; University 17, sd for storage in oil pay 2900-17 ft; University 19, sd for storage at 2885 ft. University 20, sd for repairs 2844 ft; University 22, dr 895 ft; 23, spudding; 24, spudding; 25, rig; 26; rig; 27, dr 450 ft; 28 moving in tools, 29, spudding. University Oil Co.'s No. 1 University, sd for casing 3070 ft.

SCURRY COUNTY — The California Co.'s C. E. Wood 1, co and bailing at 1700 ft. Northwest Co.'s Newman 1, oil show, preparing to shoot 1860 ft. Morrison-Thompson's M. E. Towle 1, rig. Camp Springs Oil & Ref. Co.'s Guinn 1, sd 3865 ft. J. A. Hood's No. 1 J. W. Burris, sd 3000 ft.

STONEWALL COUNTY — Elder Nance et al's Ward Estate 1, sd for repairs 2130 ft; J. M. Thomas 1, set cas 1250 ft. Arkansas Fuel Oil Co.'s No. 1 Craft, lcn in blk "F" H.&T.C. Ry sur.

STERLING COUNTY — Chicago-Texas Oil & Gas Co.'s Foster 1, fsh 1975 ft; D. C. Durham 1, sd 2250 ft; Durham 2, sd 1410 ft. Cooperative Lease & Dev. Co.'s Douthitt 1, sd 2280 ft. Geo. Kanawah-Angelo Oil Co.'s L. T. Clark 1, bailed dry in sand, preparing to abn 3365 ft. Harty et al's Reynolds 1, fsh 270 ft. C. J. Wrightsman's No. 1 Claude Collins, lcn. Wrightsman et al's No. 1 W. L. Foster, dr 525 ft; G. R. Hull 1, dr 2200 ft. White Eagle Oil & Ref. Co.'s H. M. Mills 1, sec 33, blk 22, H. & T. C. Ry sur, fsh for bit.

SUTTON COUNTY—J. W. Sorrelle et al's Clarkson et al 1, lcn in sec 17, blk A-9, Georgetown RR sur.

TAYLOR COUNTY — Sanger Oil & Ref. Co.'s No. 1 McClure, lcn.

UPTON COUNTY—George McCamey et al's Mrs. M. L. Baker 1, sec 8, Grooms sur, spd. Big Mesa Oil Co.'s University 1, sec 17, blk 3, no report. W. P. Morris et al's H. M. Halff 1, sd 655 ft. Suggs & Chancellor's University 1, sec 6, blk 4, spd and sd. Willis Campbell et al's No. 1 University, dr 1552 ft.

Louisiana Wildcats

COMPLETION

Company, Well, Location—	Initial Production Bbls.	Depth
Lincoln Parish—		
Ruston Drilling Co.'s Richards 1, 7-18-2w	*	2956

DRILLING REPORT

BIENVILLE PARISH—J. E. Smitherman's Hunt-Hodges 1, 8-15-5, dr 950 ft.

BOSSIER PARISH—Clark et al's Wutzke 1, 2-18-12, dr 210 ft. Kendrick et al's Webster 1, 9-18-11, sd 50 ft. Wetherbee et al's Beirle 1, 24-19-11, dr 125 ft. Woodley & Collins' Chamlee 1, 20-23-12, set 10-inch 336 ft.

CADDO PARISH—Dixie Oil Co.'s Dillion 53, 13-21-15, milling 3689 ft; Jolley 1, 27-22-15, set 6⅝-inch 3420 ft. Flournoy et al's Simpson 1, 8-16-15, dr 2625 ft. Fortuna Oil Co.'s C. L. B. 2, 8-20-15, ½ million gas and sw 2948 ft, to deepen; Mitchell 1, 17-18-15, dr 3650 ft. Haynes Bros. L. S. & P. 1, 8-19-16, dr 3235 ft. Henderson et al's Caldwell 1, 29-22-15, dr 1520 ft. Ohio Oil Co.'s E. K. Smith 17, 12-21-15, dr 3465 ft. Shreveport P. & R. Co.'s Bryson 1, 17-17-16, set 4½-inch 2791 ft. The Texas Co.'s Jeems Bayou 1, 15-20-16, ru rotary 3628 ft. Levee Board 58, 27-21-16, sd 2517 ft.

CLAIBORNE PARISH — Triangle Drilling Co.'s Keen 1, 7-19-5 dk.

DE SOTO PARISH — Fortuna Oil Co.'s Alexander 1 32-12-15 dr 3210 ft. Gulf Ref. Co.'s Williams C-18, 31-13-11, dr 3475 ft.

GRANT PARISH — Dowling & McCurry's Holmes 1, 20-19-1e, dk.

JACKSON PARISH—Big Chief Oil Co.'s Rymes 1, 13-14-4w, dr 3030 ft.

LA SALLE PARISH—Columbia O. & G. Co.'s Urania 1, 22-10-2e, set 10-inch 112 ft. Davis et al's Russell 1, 24-10-1e, rig. Finn & Ball's King 1, 23-10-1e, dk. Freeman & Hawkins' Urania 1, 14-10-1e, dr 1785 ft. Gould & Monroe Drilling Co.'s Harper 1, 23-10-1e, sd 1496 ft. Helm & Burch's Urania 1, 10-10-2e, to plug back to 1388 ft. Imperial O. & G. Co.'s Urania 1, 10-10-2e, dr 1675 ft. Love et al's Tremont 2, 30-10-2e, rig. Bill Rowe's Hardtner 1, 19-10-2e, wosr 1572 ft. Wright et al's Love 1,

16-11-2e, sd 1460 ft. Zeigen et al's Hartner 1, 19-10-2e, set 6-inch 1559 ft.

LINCOLN PARISH—Buckner et al's Barrett 1, 13-20-3w, dr 2425 ft.

MOREHOUSE PARISH — Boisseau et al's Sullivan 1, 11-21-7e, rig.

OUACHITA PARISH—Culver et al's Cordell 1, 23-15-3e, dk. Dickson & Frue's Goodwin 1, 24-18-2e, dr 2995 ft. Palmer Corp.'s (White) Jones 1, 6-16-5e, sd 2459 ft.

RAPIDES PARISH—Mack & Hincy's Barron 1, 29-5-2, sd 90 ft. Wilbanks & Weaver's Lanier Land 1, 3-4-3e, dr 1025 ft.

SABINE PARISH—Emlet et al's Bowman-Hicks 5, 9-7-10, to deepen 2668 ft; Bowman-Hicks 6, 8-7-12, sd 543 ft. Toro Pet. Co.'s Wyatt 1, 18-4-11, set 8-inch 1500 ft.

UNION PARISH—Jones & Walker Oil Co.'s Feazel 1, 6-19-2e, fsh 2558 ft.

WEBSTER PARISH — Fortuna Oil Co.'s Bible 1, 8-20-9, dr 2625 ft. Palmer Corp.'s Davis 1, (Cotton Valley deep test), 23-21-10, dr 3950 ft.

WINN PARISH—Ohio Oil Co.'s Rowland 1, 5-12-1w, dr 2580 ft.

Oklahoma Wildcats

ATOKA COUNTY—Hansen et al's Dabney 1, C SE NW 17-4-11w, sd 3562 ft. Wapanucka Dev. Co.'s Underwood 1, C W L SE SE 28-15-10, sd 1343 ft.

BLAINE COUNTY—Okoma Oil Co.'s Edleman 1, SEc 21-51-10w, sd 2610 ft.

BRYAN COUNTY—Alexander Hampton 1, SEc NE 26-7-11, sd 1400 ft.

CANADIAN COUNTY—Thos. Revelle Dawson 1, C SE SE NW 20-26-9w, sd 3065 ft. Carrol et al's Setter 1, SEc 2-13-8w, sd 100 ft. C. D. Jones et al's Sanders 1, C NE NE NE 29-11-7w, sd 2150 ft.

CLEVELAND COUNTY — Carr Oil Co.'s Holland 1, NEc SE 31-10-4, sd 2620 ft.

HUGHES COUNTY—Mathers & Skelly McClain 1, C SW SW 4-5-11, sd 3026 ft. Walton, Snyder & Marshall King 1, C E L NE NW 6-6-10, fsh 3701 ft. Atkins et al's Sewell 1, C SE SW SW 14-7-9, sd 3510 ft. Parmenter et al's Stewart 1, C SW SE 11-5-8, rig. Henry Greis & Kerrs Pearson 1, C SE NE NE 30-5-10, dr 1025 ft.

JEFFERSON COUNTY—Barkers et al Major 1, C SE SW 34-5-6w, spd and sd. Godley Oil Co.'s Woodworth 1, C NE NW 36-5-4w, sd 1765 ft. Pure Oil Co.'s Howard 1, SWc NE 25-4-11w, dr 1340 ft.

KIOWA COUNTY—Connor et al's No. 2, NEc NW NW 34-7-16w, sdtr 1200 ft. Alcorn Oil Co.'s No. 1, NEc SE SE SW 13-7-16w, dr 3222 ft.

LINCOLN COUNTY—P. & R. Corp.'s Hanzig 1, NWc SW 14-13-6, fsh 3391 ft. Douglas Oil Co.'s Ewing 1, NEc 7-13-3, sd 3015 ft. Eugne Coste & Co.'s Ross-Fnrtune 1, SEc NW 26-12-2, sd 425 ft. F. O. Howarth's Harris 1, SEc NE 22-15-2, fsh 4885 ft. Santrock Drilling Co.'s No. 1, SEc NW 17-15-3, sd 920 ft. Ruby et al's Cull 1, NEc NW 36-15-4, dr 4505 ft.

LOGAN COUNTY — Franklin Oil Assn.'s Moore 1, NWc SE SE 35-18-4w, sd 2520 ft. Haley & Pioneers Quair 1, SWc SE 33-19-3w, sd 270 ft. Blackford O. & G. Co.'s Lair 1, C S L N½ SE 28-16-1w, sd 1450 ft.

LOVE COUNTY — Drillers Syndicate Oil Co.'s Wilson 1, NWc SE 11-7-2, sd 2830 ft. Magnolia Pet. Co.'s Crowe 1, C NE NE SE 13-8-2, dr 2810 ft. Smyer & Steins' Gray 1, C SE SE 12-9-1, rig.

MAJOR COUNTY—Texas Prod. Oil Co.'s Basin 1, SWc 6-22-14w, sd 200 ft.

PONTOTOC COUNTY—Highland Oil Co.'s Hatcher 1, C NW SW 4-4-5, sd 2315 ft. Bronson & Doyle's Starritt 1, SWc NE 5-4-5, rig.

POTTAWATOMIE COUNTY—Texas Co.'s Allenbaugh 1, SEc SW 3-11-6, fsh 1900 ft. Davie Detrick's McGathey 1, SEc 10-6-2, sd 3850 ft. H. G. Gwuinup's Floyd 1, SW SE 12-11-3, sd 3655 ft. Pierce Oil Co.'s Madgett 1, NWc 25-10-4, sd 460 ft. McMann Oil Co.'s Heghean 1, SWc NW 19-7-4, dr 9540 ft. Halmond Osmand et al's Fiddler 1, SEc NW 4-5-5, sd 545 ft. Central National Oil Co.'s Toney 1, C SW SW SW 28-10-4, sd 755 ft.

SEMINOLE COUNTY — Maxwell's Cristoe 1, C NE NW 33-6-6, sd 3000 ft. R. F. Garland's Farlin 1, C NE NW 6-6-8, sd 1390 ft. Transcontinental Oil Co.'s Davis 1, NE SE 22-7-7, co 33/5 ft. Bryan Bros.' Walker 1, C SE SE SE 4-7-6, dr 1850 ft. Riverside & Kinney's Nitley 1, C S½ NE SE 24-5-5, rig.

WASHITA COUNTY — Meridan Pet. Co.'s No. 1, SE SE SE 14-9-15w, lcn.

Kansas Wildcats

BARBER COUNTY—R. B. Brown No. 1, NWc 14-34-11w, skidding rig, td 2240 ft.

BARTON COUNTY — Cheyenne O. & G. Co., Sooy 1, SWc SW 27-12-12w, sd 3525 ft. Haynes et al's Tuall 1, NWc 21-12-12w, sd 2400 ft. Johns Harrons' No. 1, SEc NE 22-18-13w, dr 4280 ft. Huffine et al Smith 1, C NE SW 21-19-12w, sd 2300 ft.

CLOUD COUNTY—Livingston Murdock 1, SEc 6-6-4w, dr 2310 ft.

GEARY COUNTY — Liberty-Texas Wright 1, NEc 9-12-6, sd 750 ft; Foster 1, NEc SW 3-12-6, sd 2000 ft.

GRAHAM COUNTY — Keyes Bros. & Marine Thaxton 1, SEc NW 23-8-24w, spd. Gruen & Shilers Baker 1, NWc SE NW 17-10-24w, rig.

JEFFERSON COUNTY — Northern Counties' Edwards 1, SEc NW NW 13-8-9, sd 3405 ft.

LABETTE COUNTY — Ark. Fuel Oil Co.'s Sparks 1, NEc SE SE 14-31-17, sd 1110 ft.

LINCOLN COUNTY — Equity Oil Co.'s Jellison 1, NWc SE 19-13-9w, sd 3530 ft. Scott & Collins Stone 1, SEc SW NE 19-11-6w, sd 500 ft.

MITCHELL COUNTY — Broun & Woodward's Kyle 1, SWc NE SW 11-2-10w, dr 900 ft.

NEMAHA COUNTY — Nemaha O. & G. Co.'s Meyers 1, NWc 19-3-11, sd 3250 ft.

OSAGE COUNTY—Mul-Vit Dev. Co.'s Neil 1, NEc NW SW NE 8-17-17, no report. Baker et al's No. 1, C SE SE 3-15-15, no report.

RICE COUNTY—Stamey Barnes 1, SEc NE 21-20-6w, sd 3640 ft. Jasper & Beschka's Walker 1, SWc NE 10-18-6w, dr 2375 ft.

RILEY COUNTY—Pawnee O. & G. Co.'s Marks 1, SEc NE NW 26-10-6, sd 2030 ft.

ROOKS COUNTY—Keyes Pet. Co.'s Sandon 1, NWc SW SE 7-8-20w, spd and sd. C. Findeiss et al's Minx 1, SWc 25-10-19w, dr 3312 ft.

SALINE COUNTY — Thrall et al's No. 1, SEc NE NW 15-15-4w, sd 1010 ft.

SEDGWICK COUNTY—Curtis et al's Duncan 1, SEc NW NW 19-29-1w, sd 1410 ft. Allison & Fitzwilliams' Webb 1, C NE 21-29-3w, tools.

TREGO COUNTY—Keyes Pet. Co.'s Walsh 1, NWc SE 5-11-25w, sd 1450 ft; Walsh 2, SWc SE SW 5-11-25w, sd 1550 ft.

WABAUNSEE COUNTY—Williams et al's No. 1, NEc SW 15-13-12, sd 3600 ft.

WOODSON COUNTY—Dave Alter et al's Hunt 1, NWc SW 13-25-14, sd 700 ft.

PERMITS GRANTED FOR NEW WELLS

Weekly Comparison of New Wells

Following is a condensed table giving a comparison of permits or locations made for new wells in Kansas, Oklahoma, Arkansas, Louisiana, Texas and California:

	Number of Wells for Week Ending															
	May 1	May 8	May 15	May 22	May 29	June 5	June 12	June 19	June 26	July 3	July 10	July 17	July 24	July 31	Aug. 7	Aug. 14
Kansas .	26	32	32	27	29	44	40	19	29	50	39	31	41	37	24	42
Oklahoma	81	86	94	95	114	106	93	104	115	80	96	66	69	76	60	84
Arkansas	60	49	31	77	62	67	40	64	41	*4	53	72	63	22	46	16
Louisiana	7	10	7	12	8	16	18	8	8	11	9	15	9	8	9	12
Texas . .	147	144	208	130	167	221	198	204	206	168	176	203	208	163	210	209
California	27	26	34	29	33	24	33	37	30	49	34	28	25	17	26	8
Total .	348	347	406	370	413	478	422	436	429	362	407	415	415	323	375	371

*Smackover permits not available for past week; will be included in next issue.

CALIFORNIA

Conejo Field—C. A. Harding Trustee's No. 16, 34-2-20; No. 48, 33-2-20.

Dominguez Field—Shell Co.'s Reyes 30, 34-3-13.

Inglewood Field—Petroleum Securities Co.'s Cone 14, 8-2-14. Shell Co.'s Rindge 14, 8-2-14. Standard Oil Co.'s Vickers 1-18, 7-2-14.

Newport Field—Julian Petroleum Corp.'s Mesa 2, 21-6-10.

Torrance Field—Shell Co.'s Torrance Commission 5, 9-4-14.

OKLAHOMA

Kay County—Comar Oil Co.'s No. 2½ Murphy, NWc NE NW 28-29-1w. Day Oil Co.'s David 1, SEc NW NW 3-28-1w. John Stark et al's No. 1 Huddleson, SEc NE SE 28-28-2e. Carter Oil Co.'s No. 2 Cumler, NEc SE SE 9-27-1w. Anolu Oil Co.'s No. 2 Barr, C NE NW 16-27-1w. L. Friedman's No. 2 Siler, SWc SE NE 28-25-1w.

Noble County—Reiter Foster Oil Co.'s No. 1 Cottle, SEc 8-21-2w. Magnolia Pet. Co.'s No. 1 Weeder, NWc NE 22-21-2w.

GARFIELD COUNTY—Sinclair O. & G. Co.'s No. 5 Denker, C NE SE NE 14-22-4w.

Pawnee County—Wasson & West's No. 2-A Ike Lucas, NEc NW SW 6-20-8. Schoenfelt et al's No. 1, SWc NE 9-20-9.

Payne County—Mulberry Oil Co.'s No. 3 Payne, SWc SE SW 32-18-4, old well deepened.

Creek County—Atlantic Oil Producing Co.'s No. 3 Fry, C NE SE 14-17-8. Transcontinental

Oil Co.'s No. 1 Cubbie, SWc 9-16-8. C. G. Tibbens No. 1-A Herrod NWc SW 25-15-8. Burton & Holmes' No. 3 Morgan, SWc NW NE 3-19-9. Shaffer & Tidal's No. 3 McClain, SEc NE NW 22-19-9. Gypsy Oil Co.'s No. 13 Gray, C W½ SW NE NW 6-18-12. Munn Bros.' No. 1 Strip, SEc NW NE NW 6-18-12. Texas Pacific Coal & Oil Co.'s No. 3 Harjoche, SEc SW NE 21-17-9. Tibbens O. & G. Co.'s No. 1 Posey, SWc 29-15-9. Southwestern Oil Co.'s No. 3 Harjo, NEc SE SE 18-14-10.

Tulsa County—Sand Springs Home Oil Co.'s No. 1 Fee, C SW NW NW 3-19-11. Ike Simmons' No. 7 Partridge, NEc SE NE NW 4-19-12. Gled Oil Co.'s No. 1 Harjo, C NW SW 2-19-10. Shaffer Oil & Ref. Co.'s No. 5 Bruner, NEc 6-19-12. Mutual Oil Co.'s No. 2 Colbert, C W L NE SW 29-19-12. Nowata Oil & Ref. Co.'s No. 3 Bodrey, C NE SE 30-19-12.

Okmulgee County—Phillips Pet. Co.'s No. 1 Lyons, SWc SE 36-16-12. Devonian Oil Co.'s No. 5 Marshall, C S L SW NE NW 14-15-12. Page Bros. Oil Co.'s No. 4 Culp, C SW NE NW 14-15-12. Noble O. & G. Co.'s No. 1 Arch, SWc NW 23-15-12. Ed King et al's No. 1 Burton, SWc SE SE 25-14-12. Vincent et al's No. 1 Anderson, NWc SE 3-12-11. Independent O. & G. Co.'s No. 1 Wilson, C N L NW SE 7-12-12. Decises et al's No. 3 Summers, NEc SE NW 7-11-11, old well deepened. Mid-Continent Pet. Corp.'s No. 17 M. Alexander, NEc SE NW 12-13-13; No. 13 S. Gray, NWc SE NE 12-13-13. Utah's No. 14 F. Scott, SWc NE 15-13-14. W. R. Sommerville's No. 2-A Scott, C N L S½ SW NW 25-13-14. E. J. Lambert's No. 5 W. Freeman, NEc SE NE 7-13-15. Papoose Oil Co.'s No. 26 C. Osborn, NWc SE SW 21-15-13; No. 27 Osborn, C W L NW SW 21-14-9.

Okfuskee County—H. E. Clark & Mt. Fork Oil Co.'s No. 1 Ross, NEc NW 1-13-9. Blakely O. & G. Co.'s No. 2 Washington, SWc SE SE 10-11-11.

Seminole County—McMann & Magnolia's No. 2 Whitfield, C NW SW SE 34-11-8. Indian Territory Illuminating Oil Co.'s No. 1 R. Dyer, NWc SE 24-9-6. Magnolia Pet. Co.'s No. 1 Oug, C SW NW NE 23-8-7.

Hughes County—Douglas Oil Co.'s No. 1 E. Bowlegs, C SW SW SE 14-9-9. Champlin Bass et al's No. 1 Brooks, C NE NW SW 24-8-8. Kingwood Oil Co.'s No. 1 Bird, C SW NE NW 5-8-11. D. Layne & Marshall's No. 1 L. M. Kite, C NW NE 8-6-10.

Grady County—John Schwartzfischers' No. 1 Bray, NWc NE SW SW 2-8-8.

Caddo County—Cont. Diamond Core Drlg. Co.'s No. 1 Funk, C W L SE SE 1-5-9w.

Stephens County—American Pipe Line Co.'s No. 6 Ketchum NWc SW NW 25-1n-9w. Western Arch Oil Co.'s No. 3 Morgan, NWc SE 32-1n-8w. Shaner Drlg. Co.'s No. 1 Shortes, NWc NE 12-1n-5w. Magnolia Pet. Co.'s No. 10 Wilson, NEc SE NW SE 17-2s-7w.

Tillman County—Williamson & Wilson's No. 1 Dunbar, SEc SW NW 6-4s-15w.

Carter County—Magnolia Pet. Co.'s No. 1 Winters, C SW NW SE 19-1s-3w. Wirt Franklin's No. 4 A. & F., C SW SE SW 5-3s-2w. Humble O. & R. Co.'s No. 1 Barnes, C NW SW SE 1-4s-3e. Amerada Pet. Corp.'s No. 10 Westheimer, NWc SW NE NW 28-5s-1e.

Osage County—Gled Oil Co.'s No. 14, SE NW NW NW 10-20-12. Skelly et al's No. 4, NEc 2-21-8, old well deepened. Skelly, Moore et al's No. 3, SE SW SE 3-21-9. Phillips Pet. Co.'s No. 4, NE SW NE SE 10-21-10. Oklahoma Natural Gas Co.'s No. 239, SE NW 11-21-10, old well deepened. Tidal Osage Oil Co.'s No. 2, NEc NW SW 11-21-10. Commercial Drlg. Co.'s No. 1, SEc 7-21-12. Sam Boorstein's No. 1, SE NW 30-24-8. Kewanee Oil Co.'s No. 1, NW SE 14-22-11. Wynona Oil Co.'s No. 15, C W L E½ SE 28-24-10. Barnsdall Oil Corp.'s No. 3, C E L SW 1-24-11. Owen Osage Oil Co.'s No. 339, SE SW NE 32-24-12. Continental Oil & Gas Co.'s No. 1, SE SW 5-25-8. Wrightsman et al's No. 5, NE SW NE SW 19-25-8. Devonian Oil Co.'s No. 12, SE SW 34-25-11. Mid-Kansas O. & G. Co.'s No. 9, SW SE NW 26-27-5. Phillips Pet. Co.'s No. 6, SW SE SE 20-27-5. Owen Osage Oil Co.'s No. 340, NE SE NE 11-27-11. Owen Osage's No. 341, NE SW 36-28-10. Wynona Oil Co.'s No. 9, NE SW SW 22-29-11. Wiser Oil Co.'s No. 13, NW SW NW NW 27-29-11.

Muskogee County—Blakely O. & G. Co.'s No. 1 Hawkins, SEc SW NE 4-13-16.

Wagoner County—R. E. Fike's No. 1 N. Tiger, SEc SE 24-17-16.

LOUISIANA

Acadia Parish—Joseph M. Hardie's Latreille 1, 47-9s-2w, 14 ft S and 125 ft E of NW Cor. of South three-fourths of Sec. 47.

Caddo Parish—Austin Oil Co.'s Hoss 23, 24-22n-15w, 300 ft N and 300 ft W of SE Cor. NE¼ of SW¼. Dixie Oil Co. Inc.'s Dillon 68, 14-21n-15w, 2145 ft W and 575 ft S of NE Cor. of Sec; Dillon 69, 14-21n-15w, 2350 ft W and 40 ft S of NE Cor. of Sec.

Calcasieu Parish—Vacuum Oil Co.'s Prien La Ke or (State of La.) 1, 15-10s-9w, 1190 ft S and 200 ft E of NW Cor. of Sec.

La Salle Parish—Cleve Love et al's Tremont Lbr. Co. 2, 20-10n-2e, 200 ft N and 200 ft E of SW Cor. of NW¼. Urania Pet. Co.'s Urania 8, 19-10n-2e, 200 ft E and 100 ft N of SW Cor. SW¼ of SE¼.

St. Mary Parish—George Leland's D. Caffery et al 1, 12-15s-7e, 330 ft N and 220 ft E of SW Cor. of Lot 101 of Cote Blanche Is.

Union Parish—R. W. Rhodes' W. M. Jones 1, 6-23n-2w, 200 ft N and 200 ft W of SE Cor. NE¼ of NE¼. Ruston Drilling Co.'s R. L. Ford et al 1, 8-20n-4e, Center of NE¼ of SE¼ of Sec.

Webster Parish—J. F. Giles, Tr.'s Mrs. N. A. Webb 1, 20-23n-11w, 330 ft W and 330 ft S of NE Cor. of NE¼. Woodley Pet. Co.'s C. J. Gray B-1, 27-21n-10w, 330 ft W and 330 ft N of SE Cor. of NE¼.

ARKANSAS

Ouachita County—Gulf Ref. Co.'s Goodwin 11, 32-15-15, 300 ft N and 200 ft E of SWc of section. Ohio Oil Co.'s Lewis 4, 26-15-16, NWc NE¼ SW¼; Lewis 5, 26-15-16, NEc NE¼ SE¼. Phillips Pet. Co.'s Joyce 17, 33-15-15, 393 ft N and 145 ft W of SEc SE¼ NE¼; Joyce 18, 33-15-15, 200 ft N and 300 ft E of SWc SE¼ NE¼; Joyce 19, 33-15-15, 200 ft S and 300 ft E of NWc of SE¼ NE¼. Simms Oil Co.'s Reynolds 5, 32-15-15, 200 ft S and E of NWc NE¼ NE¼; Reynolds 6, 32-15-15, 200 ft N and 165 ft W of SEc NE¼ NE¼. Standard Oil Co.'s R. Bennett B-7, 32-15-15, SEc NW¼ NE¼. Wingfield et al's Umstead 4, 4-16-15, 150 ft N and E of SWc Lot 3 in NW¼.

Union County—Amerada Pet. Corp.'s Lyall 12, 3-16-15, 150 ft N and 250 ft E of SWc NE¼ NW¼. W. H. Gilliland's Rice 2, 7-16-16, SEc N½ NW¼ NW¼. Pure Oil Co.'s Meriweather 6, 6-16-15, SEc NE¼ SW¼. Ramage et al's Lawton C-9, 10-16-15, NWc SW¼ NW¼. Southern Crude Oil Purch. Co.'s Graves 8, 3-16-15, 250 ft N and 510 ft E of center. The Texas Co.'s Langley 3, 7-16-16, SWc NE¼ NW¼.

KANSAS

Butler County—Gypsy Oil Co.'s No. 1 Hinson, NEc SW 12-24-3. Marland Oil Co. & Connell's No. 1 Gruber, SEc NW 12-24-3. Vickers et al's No. 2 Powell, SWc NW SE 12-24-3. Leonard Pet. Co.'s No. 1 Parks, NWc SW NE NE 32-26-5. Liggett et al's No. 1 Powers, SWc NE 36-27-6.

Chase County—Selby O. & G. Co.'s No. 5 Shambaugh, SEc NE SE 35-22-9.

Coffey County—W. R. Wilson's No. 1 Jones, SEc 9-20-14.

Cowley County—Trees Oil Co.'s No. 3 Smith, SWc NE SE 10-31-3; No. 4 Smith, NEc NW SE 10-31-3. O. E. Roth et al's No. 1 Bement, SEc SW SW 20-31-5. J. A. Hull et al's No. 12 Kukuk, SEc SW NE 24-32-4. Arkansas Fuel Oil Co.'s No. 2 Dudgeon, NEc SW NE 6-32-5. Waite Phillips & Marland's No. 3 H. Thurlow, SWc SE SE 17-33-3; No. 4 H. Thurlow, SEc 17-33-3.

Greenwood County—White Eagle O. & R. Co.'s No. 8 McGilvrey, NEc SW NW 12-22-11. York State Oil Co.'s No. 13 "C" De Malorie, NWc 32-22-11. Empire Gas & Fuel Co.'s No. 3 Scott, SEc SW SE 24-23-8; No. 7 Westcott, C S L NW 33-22-11. Empire's No. 4 Scott, NEc SE SE 24-23-8; No. 5 Scott, SEc NE SE 24-23-8. Greenland Oil Co.'s No. 15 Green, NEc SE 10-23-9; No. 16 Green, NWc SE NE SE NE 10-23-9; No. 17 Green, SWc SE NE 10-23-9; No. 18 Green, NWc NE SE 10-23-9. Empire's No. 29 Teter, NEc SE SE 16-23-9. Minnehoma Oil Co.'s No. 2 Teter, NEc 21-23-9. Davis Hazlett et al No. 1 Teter, NWc 22-23-9. Derby & Simmons' No. 2 Teter, C S L SE SE 36-23-9. Mission Oil Co.'s No. 1 Hollis, NEc 16-23-10. Paul Smith et al's No. 1 Freeman, SEc NW 19-24-11. Roth & Faurot's No. 1 Olson, SEc NE SE SE 11-25-8. Rogers et al's No. 1 Greff-Coulter, C E L NE SW 92-5-9. Lewis, Sandow et al's No. 1 Greessort, NWc SW 5-25-13. Beacon Oil Co.'s No. 2 Weirshing, NWc NE NW 24-26-9.

Russell County—Derby Oil Co. et al's No. 8 Sutton, NWc SW 5-12-15w. Muddy Oil Co.'s No. 3 Kollman, NEc SW NW 5-12-15w. Tom Johnson's No. 3 Kollman, NEc SW NW 5-12-15w. Valerius Oil & Gas Co.'s No. 8 Oswald-Valerius, NEc SE 8-21-15w; No. 4 Oswald, NEc SE 8-12-15w. Streeter & Searns' No. 6 Oswald, SWc NW SW 8-12-15w; No. 7 Oswald, NWc SW SW 8-12-15w.

Woodson County—Bulford & Brimm's No. 1 Daniels, NEc SW 13-26-14.

TEXAS

Archer County—Ted Harris et al's, Wichita Falls, H. F. Harmel 1, 2459 TE&L sur, 150 ft to N and 750 ft to W line. Atlantic Oil Prod. Co.'s, Magnolia Bldg., Dallas, L. F. Wilson 8, B 23, Amer. Trib sur, 420 ft N No. 4. British American Oil Corp.'s, City Nat. Bank Bldg., Wichita Falls, L. F. Wilson 15, B 27, Amer. Trib. sur, 450 ft to S in center of line. Mrs. H. B. Wallace's, Wichita Falls, Kemp & Kempner 20, S P Ry sur No. 2, 300 ft W No. 12. Consolidated Oil Co. of Texas', Wichita Falls, J. H. Turbeville 2, B 1, J. C. S. L. sur 575 ft to E and 150 ft to S line. Waite Phillips Co.'s, Tulsa, Okla., L. F. Wilson 18, S 1, BBB&C Ry sur, 2490 ft to W and 470 ft to S line. G. L. Pace, Staley Bldg., Wichita Falls, L. F. Wilson 1, Wm. Wallace sur. Leigler, Hunt & Barclay's, Olney, Texas, M. Brom 2, 1582 TE&L sur, 150 ft to S and E line. Gulf Production Co.'s, Fort Worth, W. E. Stampfli 8, 2408 TE&L sur, 150 ft to N and E lines; A. P. Nichols 7, S 37, Amer. Trib. sur, 300 ft W No. 13; J. F. Rogers 7, 2406 TE&L sur, 150 ft to N and 1365 ft to E line; E. S. Monohan 16, 1599 TE&L sur, 300 ft W No. 6; M. Wear A-2, I. Holman sur, 300 ft W No. 1. Shappell Oil Co.'s, Wichita Falls, J. L. Jackson 27, B 23, D. C. S. L. No. 4 sur, 300 ft W No. 17. Oil Investment Co.'s, Staley Bldg., Wichita Falls, Mrs. N. J. Parrish 2-A, S 2, S. P. Ry sur, 150 ft to S and W lines. Thornton Lomax Jr.'s, City Nat. Bank Bldg., Wichita Falls, L. F. Wilson 4, B 88, Amer. Trib. sur, 360 ft S No. 3; 5, same sur, 360 ft S No. 2. Commercial Petroleum Co.'s, Staley Bldg., Wichita Falls, A. P. Nichols 2, B 30, Amer. Trib. sur, 150 ft to S and E lines. Texhoma Oil & Ref. Co.'s, Wichita Falls, W. H. Taylor 6, B 489, Amer. Trib. sur, 300 ft S No. 2. Perkins & Cullom's, Box 1020, Wichita Falls, J. L. Anderson 4, B 22, Anderson sur, 750 ft to S and 450 ft to W line. Riner & Bailey's, Wichita Falls, L. F. Wilson 28, B 29, Amer. Trib. sur, 300 ft W No. 24. Texas Co.'s, Wichita Falls, R. E. Hill 7, 2408 TE&L sur, 308 ft W No. 6; 8, same sur, 300 NW No. 6. Panhandle Ref. Co.'s, Wichita Falls, M. E. Rogers 4, 1596 TE&L sur, 650 ft to N and 400 ft to W line. W. D. Hill's, Box 1176, Wichita Falls, L. F. Wilson 1, S 84, Amer. Trib. sur, 150 ft to N and W lines. Tidal Oil Co.'s, W. T. Waggoner Bldg., Fort Worth, J. T. Richardson 1, J. T. Hensley sur, 150 ft to N and 2813 ft to E line. C. G. Hart et al's, Archer City, Mrs. A. R. Roberts 1, B 5, Clark & Plumb sur, 150 ft to N and W lines. Wilson Drilling Co.'s, Wichita Falls, L. F. Wilson 1-A, Amer. Trib. sur, 150 ft to S and E lines. Smith & Trahan's, Morgan Bldg., Wichita Falls, W. M. Justice 1, W. H. Patton sur, 150 ft to E and 225 ft to S line. Bridwell & Heydrick's, Wichita Falls, Mrs. L. J. Kirkland 1, S 81, J. Richards sur, 150 ft to N and E lines. McCarty Oil Co.'s, Bob Waggoner Bldg., Wichita Falls, L. F. Wilson 13, E. Hall sur, 300 ft N No. 9; 14, same sur, 400 ft SW No. 6.

Brown County—Simms Oil Co.'s, Magnolia Bldg., Dallas, Gaines A-1, W. M. Miller sur, NE Cor. C. O. Moore & Florence Oil Co.'s, Cross Plains, H. Baxter 4, Wm. Miller sur, 450 ft to S and 1050 ft to E line. Northwest Co.'s, Snyder, C. T. Moore 1, W. C. Harryman sur, 1100 ft to S and W lines. C. O. Moore & Flor-

ence Oil Co.'s, Cross Plains, J. K. Gafford 6, Wm. Miller sur, 300 ft W No. 3; 7, same sur, 300 ft W No. 5. Halmack Oil Co.'s Amer. Exchange Nat. Bank Bldg., Dallas, R. C. Hubbard 1, Wm. English sur, 1405 ft to E and 200 ft to S line.

Bastrop County—Turner & Wortham's, Box 155, Elgin, Wm. Schuerman 1, J. Standifer sur, 150 ft to S in center of line. F. E. Skinner's, 3529 Asbery St., Dallas, L. Haywood 1, C. S. Smith sur, 450 ft to W and 150 ft to N line.

Baylor County—Petroleum Prod. Co.'s, City Nat. Bank Bldg., Wichita Falls, L. J. Kilcrease 2, 1809 TE&L sur, 370 ft N No. 1. L. D. Humphrey's, Staley Bldg., Wichita Falls, W. H. Portwood 1, 1277 TE&L sur, 150 ft to N and W lines.

Bexar County — E. B. Carruth's, 319 St. Mary's St., San Antonio, L. Janszen 1, No. 98 Blk. 5161, 400 ft to E and 750 ft to S line. Alamo Gas Co.'s, 808 East Houston St., San Antonio, E. Schiffers 6, 10 miles W of San Antonio, north of No. 5.

Callahan County—R. H. Lake's, Putnam, J. H. Cunningham 1, 135 TE&L sur, 690 ft to W and 450 ft to S line. Parkersburg Drilling Co.'s, Box 19, Cisco, L. H. Qualls 28, 2279 TE&L sur, 300 ft NE No. 27. Warren & West's, Box 272, Cisco, Diller 7, S 49, L. A. L. sur, 300 ft S No. 4. Goodloe, Harris & Tollett's, Putnam, J. E. Burnham 3, 2288 TE&L sur, 450 ft to N and E lines. Ungren & Frazier's, Box 214, Putnam, Diller Bros. 5, S 55, L. A. L. sur, 300 ft S No. 2; 6, same sur, 300 ft S No. 5. Richardson et al's, Brownwood, Central Add. 1, Cross Plains sur, 125 ft to N and E lines. Shackleford Oil Co.'s, Putnam, W. Shackleford 1, 2296 TE&L sur, 150 ft to N in center of line; 2, same sur, 300 ft E No. 1. C. O. Moore et al's, Cross Plains, J. W. McDaniel 1, C. C. S. L. sur, 1000 ft to E and 150 ft to S line. Abilene-Cisco Oil Corp.'s, Ranger, W. F. Ramsey 1, 2282 TE&L sur, 150 ft to N and 2900 ft to W line. O. G. Anderson's, Wichita Falls, P. G. Hatchett 1, S 19, D&D Asy sur, 200 ft to S and E lines. Mook-Texas Oil Co.'s, First Nat. Bank Bldg., Fort Worth, C. A. Mangham 1, Steel Add. sur, 162 ft to W and 150 ft to N line. Texas Co.'s, Cisco. G. H. Clifford 6, 3152 TE&L sur, 933 ft to N and E lines; 5, same sur, 2390 ft to N and 442 ft to W line. Lowe, DeLaney & Carter's De Leon, C. C. Barr 1, B 82, Central Add., center. Dallas-Bradford Oil Co.'s, Kirby Bldg., Dallas, H. Wagley 4, S 3, D&D Asy sur, 150 ft to S and E line. Kleiner Bros.', Cisco, J. L. Woods 2, 2277 TE&L sur, 300 ft E No. 1. J. C. Park et al's, Wichita Falls, Z. C. Wagley 8, S 2, D&D Asy sur, 450 ft to W and 150 ft to S line. H. I. Stock's, Cisco, R. D. Williams 9, 2268 TE&L sur, center. J. I. Eppstein's, 617 Chestnut St., St. Louis, Mo., R. D. Williams 9, (see above); B. C. Wagley 2, S 56, L. A. L. sur, 300 ft W No. 1. May & Wilbanks', 1311 West Craig St., San Antonio, B. E. Rutherford 2, S 8, Bayland Asy sur, 300 ft N No. 1. White Eagle Oil & Ref. Co.'s, Morgan Bldg., Wichita Falls, R. D. Williams 2, S 61, Bayland Asy sur, 150 ft to E and 900 ft to S line. W. J. House's, Moran, A. H. Wagley 10, 2039 I&GN Ry sur, 150 ft to N and W lines. R. N. Hamilton's, Cisco, L. D. Harwell 1, S 309, S. P. Ry sur, 150 ft to N and E lines. St. John & Spence's Cisco, Steel Add. 1, Cross Plains sur, center. Brannon & Murray's, Eastland, Diller 8, S 48, L. A. L. sur, 200 ft NE No. 5. T. B. Slick's, Oklahoma City, Okla., E. A. Haley 1, W. G. Anderson sur, 160 ft to N and W lines.

Culberson County—Pure Oil Co.'s, Mexia, J. E. Quaid 1, S 12, B 63, 350 ft to S and W lines.

Caldwell County — C. M. Cope's, Lockhart, C. H. Beaty 2, J. Burleson sur, 600 ft NE No. 1; C. H. Beaty 3, same sur, 300 ft NE No. 1; C. H. Beaty 4, same sur, 150 ft to N and E lines. Texas Co.'s, Houston, C. H. Beaty 10, J. Burleson sur, 601 ft to N and 1554 ft to W line; C. H. Beaty 11, same sur, 601 ft to N and 1866 ft to W line. E. Calzado, 306 Kennedy St., San Antonio, R. T. Eppright 1, G. Pace sur, SE cor; R. T. Eppright 2, G. Pace sur, SW of No. 1. Eagle Drilling Co.'s Lockhart, Mrs. F. A. Cardwell 1, J. Burleson sur 150 ft to N and E lines; Mrs. F. A. Cardwell 2, same sur, 150 ft to N and W lines. Gulf Prod. Co.'s, Houston, A. T. Cardwell 9, J. Burleson sur, 300 ft NW No. 3; A. T. Cardwell 10, same sur, 300 ft SE No. 6; A. T. Cardwell 11, same sur, 150 ft to N and W lines; A. T. Cardwell 12, same sur, 300 ft SE No. 5; A. T. Cardwell 13, same sur, 358 ft SW No. 1; M. L. Brewer 19, same sur, 658 ft SW No. 10. Humble Oil & Ref. Co.'s, Houston, Cardwell 2, J. Burleson sur, 150 ft to N and W line; Cardwell 3, same sur, 150 ft to N and E lines; Cardwell 5, same sur, 150 ft to W and 750 ft to N line; Cardwell 6, same sur, 150 ft to W and 1050 ft to N line. United North & South Oil Co.'s, Luling, W. J. Tiller 6, J. Henry sur, 900 ft W No. 4. Magnolia Pet. Co.'s, Dallas, C. H. Beaty 7, J. Burleson sur, 300 ft NW No. 6; C. H. Beaty 8, same sur, 300 ft SE No. 4.

Coleman Coutny—Canyon Oil & Gas Co.'s, Cross Plains, J. W. Harris 6, Wm. Mason sur, 400 ft N No. 5; J. W. Harris 7, same sur, 400 ft S No. 5; J. W. Harris 5, same sur, 400 ft E No. 4. C. O. Moore et al's, Cross Plains, J. C. Watson 3, Wm. Mason sur, 150 ft to E and 450 ft to S line. Shaw, Fox & Adams', Burkett, J. C. Watson 3, Wm. Mason sur, 150 ft to E and 450 ft to S line. Shaw, Fox & Adams', Burkett, J. C. Watson 3, Wm. Mason sur, north central. Archie Shaw's, Burkett, J. R. Adams 2, A. Wickson sur, 450 ft to N and 150 ft to E line. W. E. McNallen's, Fort Worth, Morris 1, Broosk & Burleson 100 ft to S and 1298 ft to E line.

Comanche County—H. J. Wood's, Box 282, Cisco, B. Blakley 2, Dewey Ranch sur, 1000 ft to W and 400 ft to S line.

Crockett County — Cumberland Oil & Gas Co.'s, Magnolia Bldg., Dallas, Crouch 1, S 18, T. T. Ry sur, 1283 ft to N in center of line. Gulf Prod. Co.'s, Fort Worth, State-Powell 1, S 31, blk 12, University Lands sur, 330 ft to N and E lines.

Chambers County — G. C. Jackson's, Eagle Lake, Ranch 1, Jackson & Boden sur, NW cor.

Clay County—A. H. Bevering et al's, Henrietta, H. Boddy 1, blk 47, P. C. S. L. sur, 300 ft to W and 150 ft to S line. B. Kollman's, First Nat. Bank Bldg., Wichita Falls, F. Stine 1, blk 13, P. C. S. L. sur, 220 ft to N and 730 ft to E line.

Eastland County — Mid-Kansas Oil & Gas Co.'s, Tulsa, Olka., J. H. Williams 1, G. W. McGrew sur, 775 ft to E and 812 ft to S line. Magnolia Pet. Co.'s, Dallas, W. H. Folts 1, M. Furey sur, 200 ft to S and E lines. Leon Oil Co.'s, Eastland, J. W. Robinson 1, S 5, blk 4, H&TC Ry sur, 280 ft to N and E lines.

Fort Bend County — Union Sulphur Co.'s, Humble Bldg., Houston, T. W. Davis 35, M. Young sur.

Galveston County—Sun Oil Co.'s, Dallas, J. W. Lockhart 5, M. Dunman sur, 50 ft to S and E lines.

Guadalupe County—Magnolia Pet. Co.'s, Dallas, D. M. Day 1, O. Randolph sur, 600 ft to center of NW line.

Hardin County — McNamara Oil Co.'s, San Jacinto Life Bldg., Beaumont, Bashara 13, S. D. Jackson sur, 300 ft E. No. 5.

Hutchinson County — Travelers Oil Co.'s Amarillo, W. L. Kingsland 1, S 6, blk Y, M&C sur, 495 ft to N and 1852 ft to E line.

Haskell County—S. S. Kouri's, 1302 Giddings St., Wichita Falls, T. E. Ballard 1, N. Haggard sur, SW cor.

Harris County—Texas Co.'s, Houston, Warren 5, T. A. Sulley sur, 700 ft N No. 3.

Howard County—Deep Rock Oil Co.'s, W. T. Waggoner Bldg., Fort Worth, H. Hyman 1, S 88, W&N Ry sur, 1320 ft to S and E lines. F. Hyer's, Dan Waggoner Bldg., Fort Worth, H. R. Clay 1, blk 29, S 139, W&N Ry sur, 300 ft to N and W lines.

Harrison County—Clark Greer Drilling Co.'s, Merchant Bldg., Waskom, Timmons 1, blk 5, Bedford sur, west central.

Jones County—C. C. Cady's, Morgan, R. E. Burns 5, S 68, L. A. L. sur, 300 ft W No. 3.

Jefferson County — Gulf Production Co.'s Houston E. Thomas 3, W. H. Smith sur, 1204 ft to W and 1686 ft to S line.

King County—California Co.'s, Box 846, Colorado, R. B. Masterson 1, S 168, R. M. Thompsur, 330 ft to S and W lines.

Kinney County—J. W. Morris', Del Rio, F. W. Herbst 1, U. C. S. L. sur, 361 ft to W and 263 ft to S line.

Live Oak County—Houston Oil Co.'s, Houston, H. Cartwright 11, Sandman sur, 1200 ft NW No. 4; H. Cartwright 12, same sur, 1200 ft SW No. 3.

Milam County — Rountree, White & Simpson's Rockdale, Fee 5, T. J. Chambers sur, 330 ft NW No. 1. Clear Lake Oil Co.'s, Rockdale, H. T. Coulter 4, Arnett sur, 150 ft to N and E lines. Anchor Oil Co.'s, Republic Bank Bldg., Dallas, Mrs. E. Hamilton 2, R. Milby sur, 300 ft NW No. 1. Luckey & Gambel's, Rockdale, Strelsky 1, T. J. Chambers sur, 150 ft to S and E lines.

McMullen County—R. P. Lightfoot's, Callihan, H. L. Lark 7, E. W. B. Scrugham sur, 350 ft to N No. 2.

Marion County—Gulf Prod. Co., Fort Worth, Mrs. M. Q. Mebane 4, N. Gupton sur, 1147 ft to E and 325 ft to S line.

Medina County—W. H. Caudill et al's, Ashland, Ky., Jungman 1, No. 31 Degeant sur, 500 ft to N and 1000 ft to E line.

Montague County—McCall & Lesh's, Nocono, R. Hynds 2, J. L. McFarlan sur, 150 ft to N and 550 ft to W line.

Navarro County—Gulf Prod. Co.'s, Houston, M. Hillburn 4, Wm. Hudson sur, 790 ft to N and 150 ft to E line. Atlantic Oil Prod. Co.'s, Magnolia Bldg., Dallas, W. E. Cunningham 2, Jas. Smith sur, 30 ft NW No. 1. Oxford Oil Co.'s, Keystone Bldg., Houston, J. L. Hill 1, center; J. L. Hill 2, NE. Penn & Windsor et al's, Santa Fe Bldg., Dallas, G. L. Vinson 2, S. Bailey sur, 450 ft to E and 1100 ft to S line.

Orange County—Orange Pet. Co.'s, Orange, O. Chesson 6, Wm. Dyson sur, 212 ft W No. 11.

Parker County—O. P. Coffin's, Caddo, Mrs. J. Stickfort 1, A. Edwiston sur, 350 ft to W and 230 ft to S line.

Palo Pinto County—R. B. Pender's, Denton, A. Rasmussen 2, S 46, T&P Ry sur, 330 ft to N and 370 ft to W line.

Refugio County — Houston Oil Co.'s Houston, W. J. J. Heard 1, Refugio Townsite, 200 ft to Sand E lines. Refugio Oil & Gas Co., Refugio, J. Lamber 2, Refugio sur, 200 ft SE No. 1; W. Heard 1, same sur, 150 ft to N and W lines.

Reagan County — Krupp & Pickrell's, Big Lake, University 22, S 36, blk 9, 678 ft S No. 71; University 23, same sur, 408 ft to N and 250 ft to W line; University 24, same sur, 250 ft to N and 330 ft to W line.

Shackelford County—G. Albert Teague Co.'s, Mobley Hotel, Cisco, Texas, T. T. Brooks 1, S 104, Univ. Lands sur, 150 ft to S and E lines. Texas Co.'s Breckenridge, Texas, S. S. Diller 28, S 42, L. A. L. sur, 413 ft to W and 962 ft to S line. Mid-Kansas Oil & Gas Co.'s, Tulsa, Okla., W. P. Newell 1, S 115, E. T. Ry. sur, 2150 ft to E and 1500 ft to S line. Dr. C. W. Wallace, Wichita Falls, Texas, Waters 1, B 61, Univ. Lands sur, 150 ft to N and W lines. H. H. Diamond, Holdenville, Okla., T. L. Terry 1, S 47, L. A. L. sur, 150 to W and 450 ft to S line. R. R. Plummer, Fort Worth, Texas, W. D. Lummus 1, S 84, Bayland Asy. sur., 180 ft to W and 400 ft to S line. Hays, Bussey & Welge, Box 374, Albany, Texas, K. J. Leschter 1, 545 TE&L sur, 450 ft to S and E lines. French & Lewis, Cisco, Texas, Diller 1, S 5, E. T. Ry. sur., 150 ft to N and W lines. L. B. Tannehill, Albany, Texas, E. Myers 4, S 1, GH&H Ry. sur, 600 ft W No. 2. Foree & Caudill, Box 487, Cisco, Texas, C. B. Snyder 1, S 38, L. A. L. sur, 450 ft to S and 270 ft to W line. Phillips Petroleum Co.'s Bartlesville, Okla., Parrish 8, S 47, Blind Asy. sur, 750 ft to W and 161 ft to N line.

Stephens County — C. C. Moorman et al's Ranger, Texas, J. T. McCleskey 1, S 65, T&P Ry. sur, 250 ft to S and E lines. Mid-Texas Petroleum Co., Oklahoma City, Okla., W. W. Cunningham 2, 1210 TE&L sur, 600 ft to W and 300 ft to N line.

Travis County—E. A. Fields et al's, Littlefield Bldg., Austin, Texas, S. Washington 1, A. Navarro sur, Center Blk. 16.

Throckmorton County—Associated Pet. Co.'s, N. P. Anderson Bldg., Fort Worth, Texas, M. V. Cummings 1, No. 54 C. I. R. sur, 200 ft to E and 1220 ft to S line.

Tarrant County — F. J. Lock & Son's, 3916 Gaston Ave., Fort Worth, Texas, E. B. Robinson 1, J. M. Cummings sur, 200 ft to N and E lines.

Wichita County — Commercial Pet. Co.'s,

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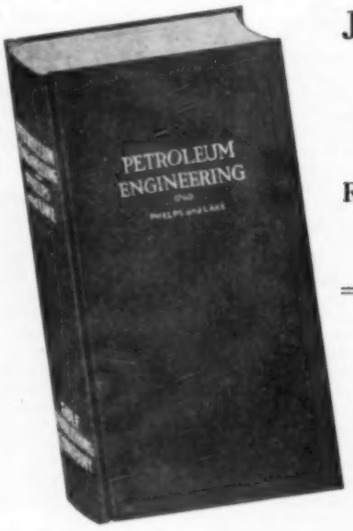

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Wilbarger County — Landreth Prod. Co.'s, Breckenridge, Texas, W. T. Waggoner M1, S 47, H&TC Ry. sur, 150 ft to N and E lines. Atlantic Oil Prod. Co.'s, Dallas, Texas, W. T. Waggoner 2, S 51, H&TC Ry. sur, 150 ft to S and W lines. C. F. Kolp, Electra, Texas, W. T. Waggoner 9, S 99, H&TC Ry. sur, 750 ft to E and 450 ft to S line. G. C. Pratt, Box 563, Vernon, Texas, W. T. Waggoner 1, S 26, H&TC Ry. sur, 150 ft to N and E lines.

Young County — Liner Drilling Co., Inc.'s, Breckenridge, Texas, Mrs. W. L. Dermett 1, G. Bellah sur, 175 ft to S and W lines. Clark, Harbin & Baldridge, Wichita Falls, Texas, J. E. Bishop 1, 162 TE&L sur, 475 ft to W and 150 ft to N line. Bolin & Beavers, Graham, Texas, G. W. Dunnagan 2, 170 TE&L sur, 450 ft W No. 1. Junker & Harris, Olney, Texas, Mrs. T. T. Doyle 1, 184 TE&L sur, 150 ft to S and W lines. Gulf Production Co., Fort Worth, Texas, F. R. Kunkell 1, 68 TE&L sur, 150 ft to S and E lines. Humble Oil & Ref. Co., Wichita Falls, Texas, I. E. Mercer 8, J. Poitevent sur, 300 ft S No. 7; I. E. Mercer 9, J. Poitevent sur, 300 ft S No. 5. British-American Oil Corp., City Nat. Bank Bldg., Wichita Falls, W. G. Leberman 1, 220 TE&L sur, 1510 ft to E and 150 ft to S line. Plains Prod. Co., Staley Bldg., Wichita Falls, Texas, L. J. Kilcrease 6, 1809 TE&L sur, 300 ft W No. 5. C. Mooers et al, City Nat. Bank Bldg., Wichita Falls, Texas, A. T. Dahse 1, B 18, I. Holman sur, 150 ft to N and W lines.

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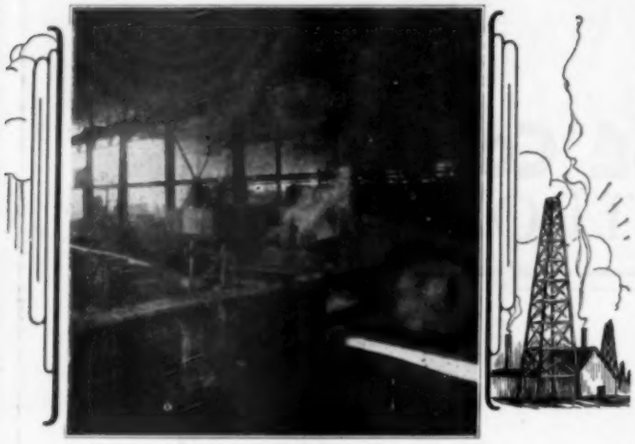

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The above shows the working of Sheffield Sucker Rod Steel ingots into billets in the Blooming Mills. This is an operation requiring considerable skill to prevent the quality of the steel being impaired.

Each billet of Sheffield Sucker Rod Steel is chipped on the surface and carefully inspected. Only those which prove perfect are allowed to go on to the bar mill.

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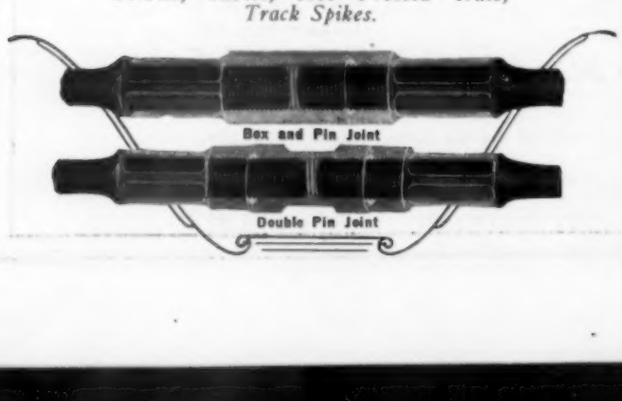

Books for Field Men

Petroleum Production Methods

By John R. Suman. Third Edition, completely revised and brought down to date. Off the press October 15, 1923. Eighty pages of new material added. Among many others the following new features are especially worth noting:

Improved Rotary Drilling Methods — Core Drilling, latest "Dope" brought down to date. Mud-Laden Fluid—Newest features fully discussed. Latest Drilling Devices fully described—The "Make and Break" rotary. Collapsible bits and other new bits. Weight indicators.

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Chapter Headings: Drilling Methods—All systems fully described. Method of shutting off water—full description of cementing methods and use of Packers. Operation of Properties and handling of production. Treating Emulsions—a very important subject thoroughly discussed. The use of electric power; this newest kind of power for oil field use thoroughly described in all of its various phases. Pipe Line—construction and operation, friction losses, etc. Tanks—construction of, preparation of gauging tables and prevention of evaporation losses. Tables and useful information condensed. Information on various subjects, which oil men are constantly needing for reference. 650 pages, fully illustrated. Cloth.

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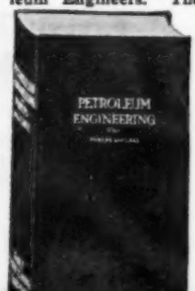
Just Off the Press, Petroleum Engineering

By Robert William Phelps and Francis Wilbur Lake, Petroleum Engineers. The essential portion of the petroleum industry, that of bringing the petroleum to the surface, is accomplished by the men in the field, whose work is greatly facilitated by the application of pertinent technical data. It was for the purpose of offering this data in practical form that this book was written. This book presents in clear terms the relation between the basic theories and laws of geology and those of petroleum geology, and their application in the occurrence and extraction of petroleum from its natural reservoirs, through to the economic phase of the industry; together with many tables and alignment charts which are applicable to petroleum engineering.



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Toggle-Joint Feature Makes Big Saving in Pumping

A worthwhile saving in the cost of materials used in pumping jacks for shallow wells has been accomplished by the Simms Oil Company, Dallas, Texas, through the introduction of a toggle-joint feature, which permits the length of the walking beam and base of the jack to be shortened considerably, without sacrificing operating efficiency. This toggle-joint feature was perfected

Straight line jack with toggle-joint feature introduced by Simms.

by Frank Gardner, chief engineer for Simms, and the results obtained through its initial use on shallow pumpers in the Olney district of North Texas has caused Simms Oil Company to adopt this particular type of jack on all of its shallow pumpers.

The toggle-joint is made of one and one-half inch salvaged pipe, and consists of three members, of which two are three feet three inches in length, while the other member is one foot and five inches long. The shortest member of the toggle-joint is bolted to the sampson post, while the two long members are bolted to the beam and base of the jack, respectively, with the other end of all three members joined together by a wrist pin. Instead of remaining rigid, the sampson post on this particular type of jack moves forward and backward in proportion to the pull of the shackle rod attached to it, thereby causing the toggle-joint to "break" with each move. This arrangement materially shortens the arc that would normally be made by the end of the walking beam, if the sampson post remained rigid, as in the case in other types of jacks.

Shorter lengths of beams and bases are made possible through the reduction of the amount of arc necessary for the beam to make in giving a full stroke to the pump, and it is this saving in material that gives the toggle-joint jack an economical advantage. The jacks used by Simms Oil Company have a 30-inch stroke on 1000-foot pumpers, and materially lessen the load on the central power plant.

The toggle-joint jacks are being manufactured by the American Manufacturing Company of Texas, Weatherford, Texas, and plans are to place them on the market shortly.

Further information can be had by communicating with the company.

New Pneumatic Drill Has Special Speed Governor

Ingersoll-Rand Company, 11 Broadway, New York City, has brought out a new design in its four-cylinder pneumatic drills, and a complete line of the new type is available in both reversible and non-reversible sizes.

A special feature of the new drill is the speed governor. This governor limits the speed of the drill after it has passed the point of maximum horse power and thus prevents racing and the consequent extra consumption of air. In addition, it avoids the wear and tear on the drill of high free speeds, excessive friction heat and resulting lubrication troubles.

Cylinder liners are of special steel, fitted into the steel casing and are easily removable. A worn cylinder may be easily renewed at small cost.

Crank pins are fitted with a sleeve held stationary on the crank pin, so that all the wear takes place on the sleeve instead the crank pin.

Lubrication of the crank pin is from the inside as well as from the outside.

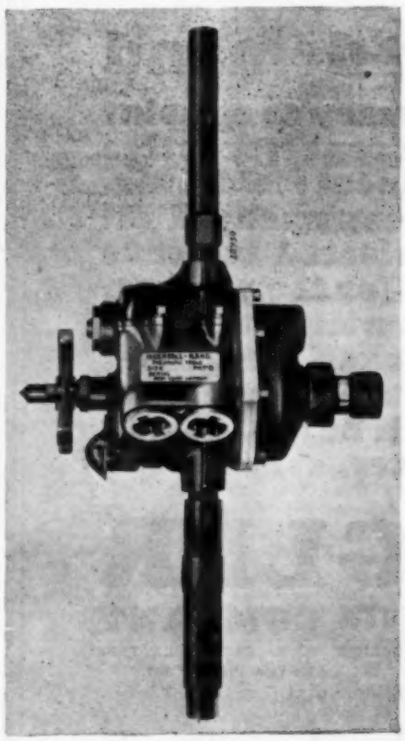
The main valve is of large diameter with long bearing surfaces.

Gearing is of helical type giving stronger construction and smoother operation than straight spur teeth.

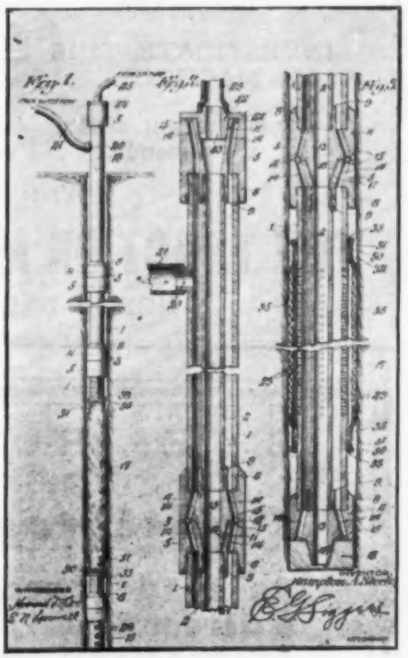
Connecting rods are of one-piece drop forgings.

Crank shaft construction permits the use of solid end connecting rods and renewable crank pin sleeves. The complete crank shaft with pistons and connecting rods can be assembled outside of the case and then inserted in place. This is a great labor and time saving feature.

Additional data can be secured from communication with the company.



External view of non-reversible type of long stroke Ingersoll-Rand pneumatic drills.



Side elevation of invention for overcoming difficulty in testing potential oil or gas stratum.

Device Tests Potential Oil or Gas Stratum

Patent papers have been secured by Hampton A. Steele, P. O. Box 137, Lawton, Oklahoma, on a device to overcome difficulty, uncertainty, and delay in testing a potential oil or gas producing stratum.

This new method of testing includes the use of a new type of cord and rubber packer which is operated in a novel manner by the use of a duplex string of pipe.

It is said that the method makes it possible to test oil or gas bearing formations, and to determine their exact productivity without the use of a casing and without the necessity of bailing or swabbing mud and water from the hole. The removal and exclusion of mud and water is effected by air

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S E R V I C E

Consistent demand

has made it necessary to appoint a direct Spengler representative for the Mid-Continent fields. Mr. J. O. Carter, an experienced oil man, has been selected to serve in this capacity. For the present, his headquarters will be the Rice Hotel, Houston, Texas. First hand information on the services of this company will be obtainable through Mr. Carter.

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R E S U L T S

pressure, in cooperation with the use of the packer above mentioned.

Another claim made for the outfit is that through its use, lost sands which have been drilled through unknowingly may be located and tested, their exact depth and thickness learned, and their productivity determined without bailing or without the use of casing.

A further advantage of the invention is to make it feasible to obtain production simultaneously from several separate and distinct sands in the same well even though there is water between them.

Descriptions of the devices in detail are too long to be included in this notice, but further information will be furnished by Hampton A. Steele, P. O. Box 137, Lawton, Oklahoma, upon request.

Steel Derrick Company Enlarges Plant Facilities

Los Angeles, Calif.—The Emsco Steel Products Company, of this city, manufacturers of Emsco All Steel derricks and other all-steel oil well equipment, has recently acquired full and complete basic patents on tubular reinforcement for structural steel derricks.

During the past few months, this company has enlarged its plant and increased its manufacturing facilities to take care of business in the Mid-Continent and eastern fields, and is now in position to furnish steel derricks in any quantity to any section of the country.

Engineering Yearbook

The American Engineering Standards Committee has just released its year book for 1924, and copies may be secured from the office of the secretary, 29 W. 39th St., New York City.

The year book outlines what has already been done in standardization in the different industries, and reviews the accomplishments along this line during last year. In addition, projects for 1925 are sketched.

The book is of value to anyone interested in standardization and will be a great help to petroleum engineers.

Ward Chemical Company Making High Heat Paint

Tulsa, Okla.—The Ward Chemical Company, manufacturers of boiler scale removing and water softening compounds and other chemicals for oil industry use, is putting on the market a new paint to withstand high temperatures. The paint is being marketed under the trade name of Ward's High Heat Paint.

The paint has been given tests under actual working conditions and has been found not to chip and to successfully withstand excessive heat and resist scale and corrosion.

LETTERS OF Paul Peebles P.S.G.

mi deer cleopatry

well cleo hunny it aint nothin happened 2 mar the serenety of our relations during the past week whitch meens I gess that yu are satisfied now that I am yore trew sweety whitch I am that yu are 2 me whitch makes things pretty lovly. I hoap that yu enjoyed that candy whitch I sent yu bi that jitney driver if he delivered it 2 yu alrite & if he did not plees let me no sos that I can beet him up if he has it commin 2 him.

that was mitey good candy hunny on account I pade $3.00 for a 2 pounds box & the box shore was pretty, as I gess yu no bi this time. plees do not think that I am estravagant hunny spendin that much munny on yu like that when yu hav bin use 2 suger stick canddy & wood a bin just as well satisfied with it, because I was flush that day on account of a little deel whitch I made & did not care nuthin for expentses besides they do not make no candy 2 good for mi sweety.

but I hoap hunny that etin candy does not add none 2 your width & wate because lord noes they are both big enuff now.

well hunny I am kinder expectin a call 2 go 2 washington agin pretty soon 2 sit in with the presidents oil bord on the conservation question. j edger pew & bill farish an sum moar boys in the api hav rit a book whitch kinder puts a crimp in the oil bords tale, but on account of it bein kinder disappointin 2 the bord they is goin 2 hav 2 hav sum moar testimony, espeshul on the gulf coast cuntry on account of a few of the boys is sayin that the best prospects of findin new feelds for the future is rite in the gulf coast, whitch is always what I hav sed & I of the reesens whitch I have not excepted none of mi flatterin offers 2 move mi talents 2 other parts. I cum 2 this cuntry when it was yung & I perpose 2 stay & see it grow up.

the book has got sumthin in it about the gulf coast by wallis pratt an walter piron & elek derrsn sayin about salt dooms & seesmore grafts, etcetry, but yu no hunny that whilst these men has sum standin in the oil geeology bizness, the gov't bleevs that all men are lires unlessen they sware before a notorious republican & they will not let these birds sware because they is all intrested direck in the oil bizness in this section eether by persenal ownership or threw corporation connecktions & the corporations they is with is too ritch for the govt to think they cood be honest. so they kinder take there opinyuns with a salt dome up 2 washington. so with mi case I aint got nuthin or no entanglin allinances with on big co's sos that they can take mi opinyuns so if I say they these gentlemen is right well they will make it a law up in washington & then it will be so. anuther thing why I will be wanted in washington is that the hed of the oil conservation is name work & it aint menny geeologists that wants to approach even the name of work. & besides that I will sware to anything.

but whilst the oil bizness is gettin itself stratened out I hav bin applyin sum thort 2 the general good of the cuntry & the plite of the farmers on account of it aint no rane.

I do not perpose 2 set miself up for a rane maker, but it is sumthin rong about it not rainin & if I cood not do no good well I cood at leest find out why it does not rane & deduckt if it ever will rane enny moar so that if it aint gonner rain no moar like the song sez, well the farmers can all move 2 town & go in the fillin stashun bizness & not waste no moar time tryin 2 farm.

well first off I tried 2 studdy up what has happen recent whitch mite keep it from rainin besides havin a continued republikan administrashun & the onliest thing I can think of whitch we hav bin doin whitch we did not did is radyo. then it occurs 2 me that mabe with so mutch radyo in the air the watter was all tooken up in the makin of static sos that it was not none 2 fall for rane, whitch sounds kinder reesenable. but on the other hand it seams like it is still as mutch watter as it ever was because I hav bin observin the see at galveston pretty clost & it is still full. sum of the creeks is pretty low, but that is normal for a dry year, it shore aint no fallin off of watter in oil wells.

& besides all that, if radyo is responsible for it not rainin it wood be a kinder of a everlushun in the elements of nature & they hav just had a trial in tennysee & proov that things don't everloot, whitch meens hunny that noar had a radyo on the ark & ham thowed it overbord because all the broadcastin stashuns was drownded out & he was mad because he cood not git no jazz 2 danse by after him countin on it all the time his old man was bildin the boat.

well them deduckshuns just natcherly gets down to this that it aint the radyo whitch is keepin the rain from fallin, so it must be sumthin elst & I gess mabe it is a sitterwashun whitch will rite itself after awhile or else it will be a long dry spell. mabe it is because the rane falls on the just & the unjust & with all of them out towering in their automobeels endurin the summer & kinder birds of a fether flockin together, the just ones & the unjust ones is so unmixt that the rane cannot fall on both of them at one & the same time. ennyway it has not bin rainin mutch. so all the advise I can giv on the subjeck is that mabe it will rane by an bi & all we can do is wate & see.

I neerly forgotten 2 tell yu hunny that I was down 2 humble agin this week & slep out on the rivver, but it was only some fellers along with me. I seen that girl whitch I was tellin yu about before down there & she smole a smile at me but the fellers I was with was in a hurry 2 get away every time I seen her so that I aint no better aquainted with her than I was but I am kinder makin sum progress with her because she noes now that I want coffey every time I eet because all she sed 2 me was did I want sum coffey. well she wood a not asted me if she had not a noed that I did whitch is a pretty good sine. I gess I had better stop goin down there befoar she misunderstands me, because I shore wood hate 2 hav her git stuck on me on account of I do not want 2 fool her like that and disapoint her. she does not no about yu hunny & mite get stuck on me reel seerus without no encouragements on mi part whitch has happen befoar.

well hunny I will let yu no befoar I go 2 washington 2 tell the govt. about how mutch oil will be recovvered in the gulf coast & mabe I will git time to cum 2 sea yu in the between times because hunny I shore am gittin hungry 2 sea yu & hold yore lilly white hand even if just a one minnit.

yore lovin paul.

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Jones: "The blind was up."

Brown: "Why didn't you pull it down?"

Jones: "I couldn't reach across the street."—Mid-Continent Purchaser.

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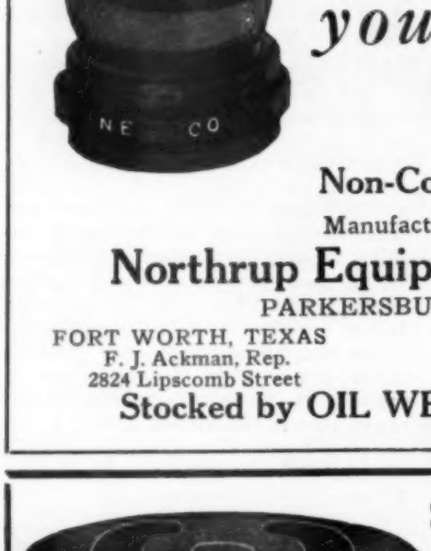

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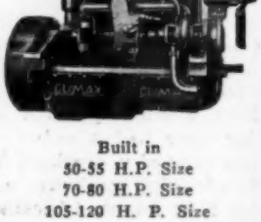

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Standing of Wells Important Problem

By JOHN R. SUMAN

Reprinted from the proceedings of the American Institute of Mining and metallurgical Engineers

EXCEPTING the very few oil fields of the world in which the production comes from a limestone formation, the greatest problems encountered in oil wells come from trouble caused by sand. These troubles are brought about by sand accumulating in the strainer, liner, tubing, or cutting out various parts of the well equipment. The remarks here made are intended to apply to the so-called "soft sand" producing areas such as those of California and the Gulf Coast of Texas and Louisiana. However, there are certain features of sanding problems in pumping wells which are almost universal.

In the "soft sand" producing districts such as California or the Gulf of Texas and Louisiana, wells often come in flowing at the rate of several thousand barrels of oil per day, and after flowing a few hours, "sand up." In many cases it will be found that when the sand is cleaned out of the strainer or liner, and the well again starts flowing the production will be but a small fraction of what it was originally. Many and varied opinions have been handed down by oil men to account for this condition.

The most satisfactory explanation of this failure of wells to come back to initial flow, after once sanding, will be found from a close study of the producing formations. It will usually be found that the oil producing zone consists of alternating layers of sand and shale. In the Gulf Coast district these alternating layers may be only a few feet or a few inches thick. When the well blows out or starts to flow with an accompaniment of strong gas pressure the sand is blown into the hole through the screen, strainer, or perforated pipe. Large quantities of sand quite commonly accompany these flows. The holding of back pressure on the wells by use of "flow beans," etc., tends to hold back the sand. Also the use of fine-gage screen helps to hold the sand back; but if the pressure is very strong and the gas is present the screen is usually cut out in short order.

The explanation of the failure of the well to "come-back" after being cleaned out, consequent to the initial sanding up, will be found back of the liner or screen. It will probably be evident that the alternating layers of sand and shale have given up most of their sand for several feet back from the hole,

*Manager Rio Bravo Oil Co., Houston, Texas.

and the shale layers have collapsed against the screen, effectively sealing the majority of the sands, and preventing the flow of oil to the hole. Thus a 5000-bbl. flowing well, after being cleaned out, will probably come back as a 300-bbl. pumper.

Quite often in the Gulf Coast, after a flowing well sands up, and is cleaned out a smaller size of screen will be set inside the original screen to hold the sand back. Many operators are of the opinion that this setting of the small screen, and attendant trouble of fluid in getting through two sets of screens, has a direct bearing on the lowered production; but it is doubted that this is an important factor.

Pulling of screen and resetting rarely helps such a condition. This is due to the sealing effect of the collapsed shales which extend probably several feet back from the hole. The best method of handling such a situation is to drop a "whip-stock" and "sidetrack," trying to get as far away from the old hole as possible. Such a repair has a far greater chance of bringing the well to its original status than any repair work which could be carried on inside the strainer.

The Sanding of Pumping Wells

The writer is inclined to agree with Kobbe and others that it is very desirable, in order to get maximum recovery per well, to produce a considerable amount of sand in pumping wells. Experience in "soft sand" fields will probably bear out the statement that the wells producing the most sand have a high ultimate recovery of oil.

Sand coming into a properly screened pumping well is a different problem from sand coming into a flowing well under high gas pressure. In a pumping well the movement of sand toward the liner is such that small sand grains move between larger ones to enter the liner. When this condition is ideal we have a footing of large sand grains around the outside of the screen with the size gradually getting smaller as we move outward. This furnishes an excellent footing for long-lived wells and maximum oil production. With this condition there is practically no tendency for the shale layers to cave, as the volume of sand has not changed.

This sanding of producing wells inside the tubing and inside the liner is due to one of several causes which might be discussed as follows:

Pumping wells sand up in many instances, because so much sand comes in with the fluid that the pumping equipment cannot handle it. This may be remedied by installing pumping equipment of a different type, or by setting the pump at a higher level, so a sufficient fluid heat can be maintained on the sand to prevent excessive movement. Of course, when handling fluid making an excessive amount of sand, the plunger pump is the correct type to use. In the Gulf Coast of Texas a few operators, in order to

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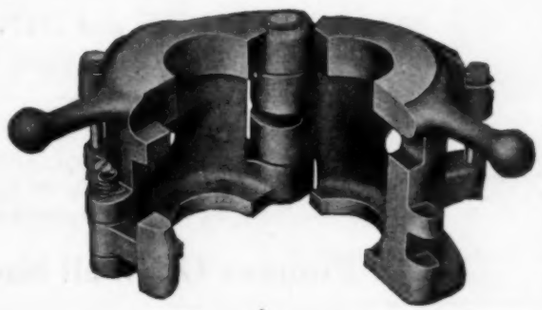

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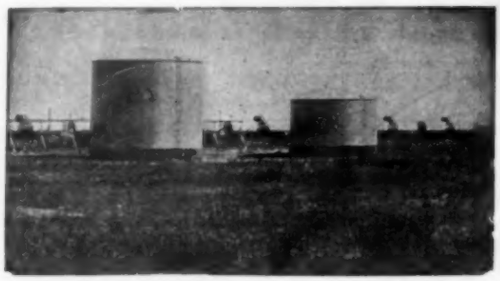

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cope with a very bad sand condition, are using plunger pumps of regular type with closed traveling valves. This "Maccroni" pump, as it is called, used one inch and one and one-quarter inch pipe for sucker rods, and the oil moves to the surface inside the "rods." One advantage of this is to give the sand-bearing fluid a very high velocity which tends to prevent settling back. Some operators in California have experienced trouble in getting plungers to fit correctly, due to warping of barrels, and other distortion effects, caused by the underground heat. To avoid this they have gone to the multiple stage plunger pump, which is simply three or more short plungers and barrels set one above the other.

Another common cause of sanding of pumping equipment is by wells "pumping-off" or only making fluid at intermittent periods. During these times, when the fluid is at rest, the sand naturally settles back through the tubing against the pumping equipment, and freezes the plunger in the barrel. The well does not necessarily have to be making a large amount of sand to do this. The remedy is to use smaller sized tubing, and a smaller size plunger and barrel.

Some of the sanding troubles can be avoided by studying the fluid level of the pumping wells, and pumping the wells in such a manner that sufficient heads of oil can be maintained on the sand to stop its movement into the well. This necessitates raising the working barrel to the desired point in the hole.

In pumping in districts where the gas pressure is low and the sands are partially exhausted, it may not be desirable to raise the working barrel to the desired point. On the other hand, it is often necessary, in order to get the best results, to lower the working barrel into the well to a point where the standing valve is on a level with the center of the producing sand. If a well gives trouble with sand in such a case as the latter it will be necessary to use one of the above described types of pumping equipment to handle it.

Pumping wells making an excessive amount of sand have a high maintenance cost. It would be very interesting to classify the pumping cost of the various fields of the United States according to quantity of sand produced. Depths being equal, it would unquestionably be found that the pumping cost would mount in direct proportion to the quantity of sand produced from the wells.

Rocky Mountain Area Continues Upward Trend

Casper, Wyo.—Daily average pipe runs in the Rocky Mountains continued to soar during the past week, despite the fact that completions fell off sharply. Nearly every major field in the district showed gains in average pipe line

runs for the week. The Kevin-Sunburst field alone showed a decided decline in production. This may be attributed to the small pipe line capacities and the large demand for oil for drilling purposes in the field. It is estimated that the present potential capacity of all the producing wells in the field is in excess of 20,000 barrels daily. Salt Creek production has climbed more than 10,000 barrels daily since early in the year. Present indications indicate that the field is now producing well up to its maximum capacity, allowing for some of the production from a few of the deep tests which are now shut in for various reasons. Grass Creek, in Wyoming, and the Craig field in Colorado showed large increases in production during the week. The new well of the Texas Production Company in the latter field was the chief reason for the large increase. Many of the smaller fields showed large per well gains. Warm weather has been a contributing factor toward the increases.

Producers and Refiners Corporation has announced that two more wells will be drilled on the Crooks gap structure, where this organization recently brought in a new light oil field at a depth of 2520 feet. Other parts of the structure will be tested in an effort to determine the probable producing area. The original intention was to drill the discovery well to the Dakota sand, but production was unexpectedly encountered in the Frontier sand. The test may be continued to test the lower strata. The Crooks Gap structure is located 30 miles west of the Little Lost Soldier field, where pipe line facilities are available.

The Texas Production Company has reached an agreement with the Wyland syndicate whereby the latter's test near Arminto, Wyoming, will be drilled deeper. The test was started more than two years ago. A flow of 5,000,000 feet of gas was found at 2775 feet, where the well has been standing for more than a year. The Arminto structure is 10 miles southwest of Notches dome, a heavy oil field with production in the Tensleep, and six miles west of the Lox gas field. The structure apparently is a large one and oil of a fairly good grade is expected if the test is successful, as production would come from sands ordinarily carrying a better grade of oil than that found in adjacent fields.

The Continental Oil Company, largest producer in the Big Muddy field, has definitely decided to make a second Wall Creek producer of its No. 38H test, plugging back to this sand after having attained a depth of more than 4000 feet. This test was considered an important one in the field but failed to uncover anything of significance. The Big Muddy field produces principally from the lower Wall Creek sands.

Casper definitely has been designated as the point where the Senate Commit-

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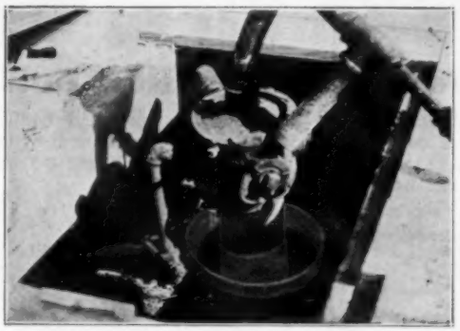

This photograph shows a French gas tight tubing anchor after the rig was destroyed by fire. After the rig was rebuilt the same anchor and tubing were replaced in the well, the first joint of tubing being the only portion necessary to replace.

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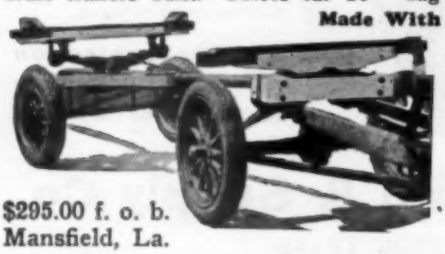

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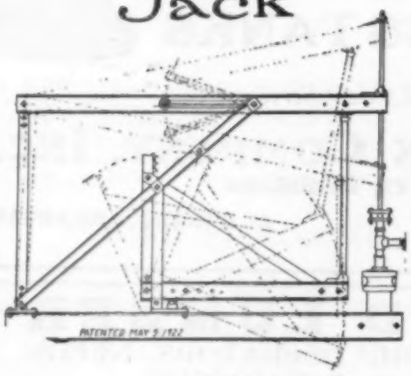

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tee on Public Lands will meet, relative to an investigation as to how the Salt Creek field is operated, how leases were and are acquired and what steps are being taken to operate the government oil lands in a profitable and economical way. It is understood that the committee will be composed of not less than eight United States senators. The committee will meet some time during September

The Prairie Oil & Gas Company formally has entered Montana and will drill the Mifflin dome, located in the Crow Indian reservation and about 20 miles southeast of Billings. Officials of the company have acquired large acreage in this vicinity and active drilling will begin at once. The Wyoming branch of the Prairie interests will have exclusive charge of all Montana developments.

With the development of a larger production of oil in the Montana fields, the railroads of the state are constantly using more fuel oil. A constant supply is available for the future. Before the intensive development of the early summer months, refinery requirements made the fuel oil supply somewhat doubtful. The Kevin-Sunburst field is located near the main line of the Great Northern railroad, the largest consumer of fuel oil in Montana.

The Midwest Refining Company has brought in its Shaw No. 1 well on the Iles dome (Colorado) for a production of 500 barrels daily. This is the second producer completed on the structure. The first well was plugged back from the Dakota sand to a shale formation, where it made a commercial well. The Iles structure is only 25 miles south of the Moffat dome, where the Texas Production Company has production of more than 2500 barrels. A pipe line probably will be built from Iles to Moffat dome to connect with the proposed line from the latter field.

Just how many wells the Texas Production Company will drill on the Moffat dome has not been announced, but this structure probably is the most promising of the many in which the company holds interests throughout the Rocky Mountains. The well recently brought in is producing much better than at first estimated, and is capable of producing 2000 barrels daily. The oil is free from water and of a very high grade. The structure is in an isolated district, making it necessary to ship the oil by tank cars to Wyoming refineries. The recently completed well probably will cause officials of the Texas interests to build a pipe line from the field. The Producers and Refiners refinery at Parco, Wyoming, is nearest Moffat dome and is the easiest outlet for the field.

Several deep tests are planned in New Mexico. Due to the comparatively shallow depth at which production ordinarily is found, deep tests have been sorely neglected.

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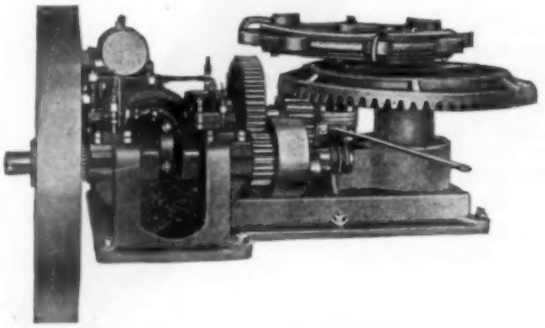

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Parkersburg, W. Va.

International Derrick Controls Supply Source

The International Derrick & Equipment Company, with the recent purchase of the Superior Die and Tool Company, of Columbus, Ohio, and the foundry of the Delaware Foundry and Engineering Company, of Delaware, Ohio, is now the largest concern in the world devoted to the manufacture of all-steel galvanized equipment for the oil industry, according to the company. With the output of these underlying industries supplying their immense fabricating shops at Columbus, Ohio, and the addition of a new fabricating plant at Torrance, California, the International Derrick & Equipment Company is assured of its supply of basic materials.

To efficiently control their growing business the company has established warehouses in every active oil center in the country. A systematized method in selling and distributing their products has brought a better standardization of range and prices of these products as well as a high state of efficiency.

The purpose of the International Derrick & Equipment Company in buying the control of these recently acquired concerns was to secure the control of the products from the time of the selection of the material to the placing of the products in the warehouse.

Included in the well known products of the International Derrick & Equipment Company are the Galvanized Structural Steel Derricks, Standardized Buildings and drilling equipment bearing the name "Ideco."

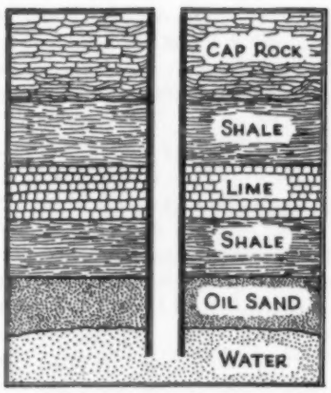
H. P. Reese, Prairie Superintendent, Dies

Tulsa, Okla.—Tulsa offices of the Prairie Oil & Gas Company were closed a half day August 10 in honor of the memory of H. P. Reese, former assistant superintendent of production for the company. He died August 6 in Denver, Colorado, where he had gone on account of his health. Typhoid fever contracted earlier in the year was the cause of his death.

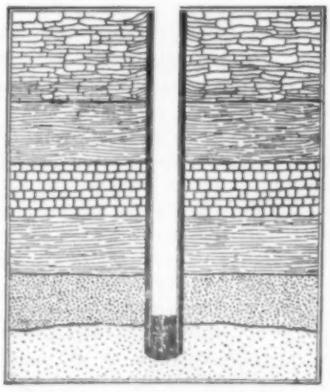
He had been connected with the Prairie over a span of years and enjoyed wide popularity in the petroleum industry.

Martin Van Couvering, petroleum engineer, has moved his office from Long Beach to Los Angeles. His new location is Suite 841 of the Petroleum Securities Building.

C. W. Ralph, director of sales and transportation for the Union Oil Company of California, returned to his home office at Los Angeles July 31, after an extended trip of inspection over the company's properties in the northwestern part of the United States.



BEFORE PLUGGING



AFTER PLUGGING

FREE Booklet

"Lead Wool completely shut off the water"

A LETTER recently received from R. A. Crawford, Conservation Officer for the Corporation Commission of Oklahoma, at Chelsea, is typical of the results constantly achieved by Eagle Lead Wool and Cartridge Container for plugging off bottom water. Mr. Crawford writes as follows:

"Sec. 12, T 24, R 16, on the Ketchum farm SE of NW of NE, Lease owner C. S. Hummell Chelsea Oklahoma Well No. 17. Well record, 100 ft. of 61/4Cs. Sand 419 to 429. Top of Lime 677 and ½, water 1010, total depth 1012. Used 100 ft. of rock bridge, set 50 pounds of Lead Wool, which completely shut off the water which before was coming over the top of the casing. The Lead Wool plugs are very effective and all the producers that have used them seem to be well pleased."

You can buy Eagle Lead Wool and its special Cartridge Container—furnished in sizes for all casings—from your supply company. Or you may write direct to Eagle-Picher at Joplin.

Write at once for your free copies of the booklets, "Plugging Oil Wells with Lead Wool," and "How to Use Eagle Lead Wool Containers."

The EAGLE-PICHER LEAD COMPANY · *Chicago · Joplin · Cincinnati*

EAGLE LEAD WOOL

and Cartridge Container

Producers of lead and allied products · Eleven Plants · Branches in all principal cities

Now they're setting heavy strings of casing a mile long with the

BAKER Float Collar

It relieves the rig and equipment of the tremendous strain caused by the extra weight of long strings. Circulation is obtained immediately when casing is lowered with Float Collar one or two joints from the bottom. * * * * This appliance also is very useful when cementing. The first plug can be dispensed with entirely, and cement pumped right on top of the mud. When all cement is in, the top plug is inserted and pumped down until it hits the casing float. After cement is "set" the cast iron plug in the Float Collar is drilled up with the cement. * * * * Suggestions for use in any particular case will gladly be given. Write for complete descriptive circular.

Baker Casing Shoe Co.

Box 264 C, Huntington Park Station,
Los Angeles, Cal.
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Mid-Continent Representatives:
B. & A. Specialty Co., 404 West First St.,
Tulsa, Oklahoma
Export Distributors:
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BUY USED PIPE

and Save the Difference

100,000 ft. 2" Used line pipe.
20,000 ft. 3" Used line pipe.
5,000 ft. 4" Used line pipe.
5,000 ft. 6" Used line pipe.
15,000 ft. 8" Used line pipe.

We buy abandoned pipe lines and oil wells. If you have any to sell, communicate with us before you dispose of them.

950 ft. 15½" 70 lb. Used casing.
1400 ft. 12½" 50 lb. Used casing.
2200 ft. 10" 40 lb. Used casing.
3800 ft. 6¼" 26 lb. Used casing.

Above casing located in Perryton, Texas, near the Amarillo oil field.

Keystone Pipe & Supply Company

Eastern Headquarters: Butler, Penna.
Western Headquarters: Fort Worth, Texas, 315 W. T. Waggoner Bldg.
BRANCH STORES:
Wichita Falls, Holliday, Vernon, Breckenridge, Texas

FOR SALE

Four Large Type Union Tool rotary rigs complete, same as new. Will sell one or all at bargain. Write Box 897, Corsicana, Texas.

TEXAS OIL MAPS

County and District
Catalog on Application
HEYDRICK MAPPING COMPANY
Wichita Falls, Texas

THE FT. WORTH LABORATORIES

Field Gas Testing. Analysis of oil field brines, gas minerals and oil. Sell Thermometers, Hydrometers and Laboratory Glassware

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PATENTS OBTAINED FOR INVENTORS
JACK A. SCHLEY
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305 INTERURBAN BLDG., DALLAS

"Safety Day" Will Be Big Event at Tulsa Exposition

Tulsa, Oklahoma.—Safety is to have a day on the program of the International Petroleum Exposition. October 8 has been designated and a program is in process of completion. A competition between teams representing the oil companies of the Mid-Continent will be the chief attraction of the day.

The affair is to be under auspices of the Safety Council of the Mid-Continent Oil and Gas Association.

In addition to the team competition, there will be moving pictures on safety. The manufacturing concerns having space at the exposition are getting in line for the day and will have displays along the line of safety as part of their decoration scheme for the day.

Prizes will be awarded. All trophies have not been designated. But the National Safety Council already has forwarded silver and bronze medals, which are to be awarded to winners of the competitive efforts along safety lines. The Mine Safety Appliances Company is offering six first aid kits to the six members of one team.

The whole list of prizes will be much larger than this and there will be a cup for the winning team.

The team competition will be along the order of those conducted in the coal mining districts. Teams will come to the exposition after they have had opportunity to practice what they will be called upon to do, except they will not know what parts of the work they have practiced is to be given them.

The scope of the competition has been included in a bulletin, which has been sent to the concerns, whose teams will compete.

Nine accidents, all common to the oil industry, have been selected for the competition. These include the accidents likely to occur on an oil lease, around a refinery or around a natural gasoline plant. These accidents have been outlined and have been given to competing teams, which can drill on them until the date of the exposition.

For the competition, three or four of the nine possible accidents will be selected by the judges and the team before the judges will be required to go through the process of taking care of a man when such an accident has taken place.

There will be an oral examination in conjunction with the competitive work.

Each team must consist of six men. Any employe of the petroleum industry may be a member of a team, provided he is not a doctor nor a trained nurse.

The competitive work will be in an open space on the exposition grounds.

Twelve teams already have been entered for the competitive work. Oth-

(Continued on page 90.)

THE SIMPLEST PLANT IN THE WORLD FOR TREATING CUT OIL

This small feeder, filled with TRET-O-LITE and placed on the flow line from the well—solves the entire treating problem of many a producer.

It demonstrates the utter simplicity of the TRET-O-LITE Process and suggests why the TRET-O-LITE is by far the most widely used process and is in many districts the ONLY process in use.

Our nearest field expert will be glad to call and confer with you, without obligation.

The Simplest, Most Economical, Most THOROUGH Process

The mere feeding of TRET-O-LITE into the flow line with the "Tret-O-Lizer" shown above constitutes a complete treating method for some emulsions. On reaching the settling tank the emulsion separates promptly into pipe line oil and water.

In other cases application of mild heat is also necessary.

Any practical method of mixing TRET-O-LITE into the emulsion and allowing water to settle out, constitutes a TRET-O-LITE plant. Most installations are "home-made" from materials already on the lease.

Wm. S. Barnickel & Company

ST. LOUIS, MO.

Offices and Plant: Webster Groves, St. Louis County, Mo.

Tret-O-lite

Reg. U. S. Pat. Off.

"OILWELL" ESTD. 1862. TRADE MARK. (REGISTERED)

"OILWELL" Imperial "Mud Hog"

Steam Driven

Known wherever the rotary is used, Imperial "Mud Hog" and Imperial "Giant Mud Hog" Pumps give confidence to the driller as they can be relied upon to do the work.

Especially designed to work against high pressures and to handle thick mud laden fluid. Can also be used for pumping oil or water through pipe lines where large capacity as well as high pressure is required.

The Imperial "Mud Hog" will work against 500 pounds pressure, and the Imperial "Giant Mud Hog" against 1,000 pounds pressure.

OIL WELL S U

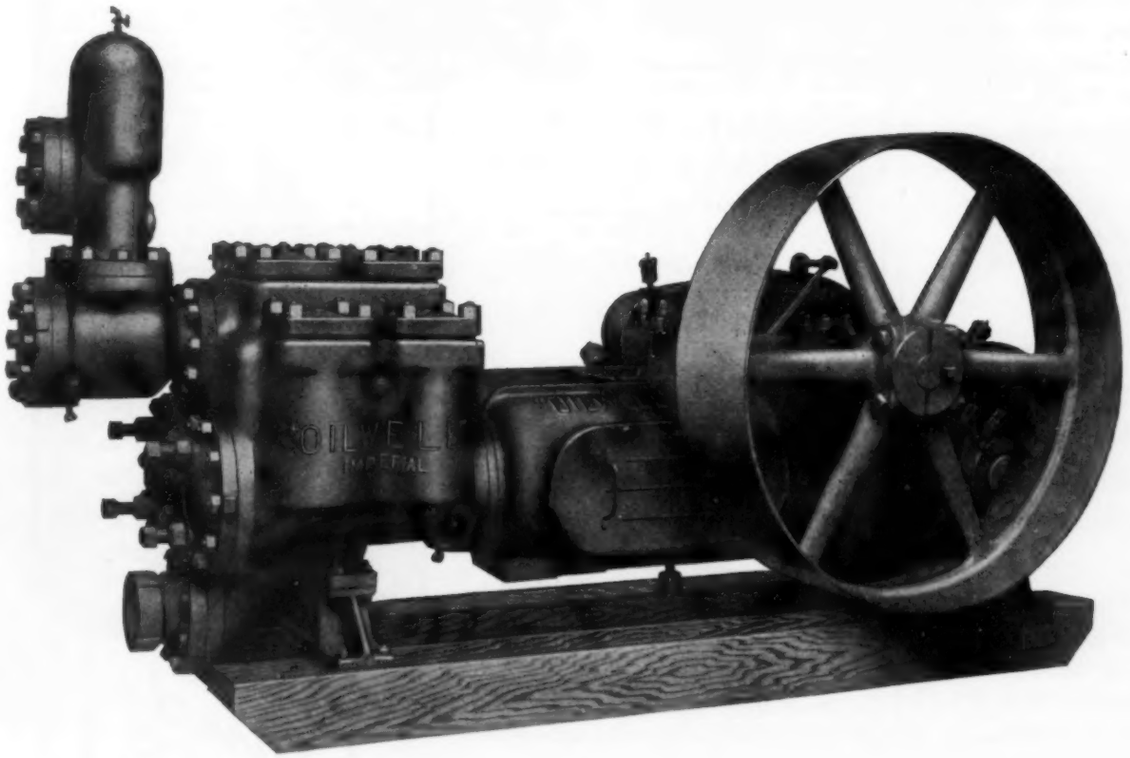
WORLD'S OLDEST AND LARGEST MANUFACTURERS OF OIL FIELD EQUIP

"OILWELL" ESTD. 1862. TRADE MARK. (REGISTERED)

"OILWELL" ESTD 1862 TRADE MARK. REGISTERED.

and Imperial "Giant Mud Hog" Pumps

Power Driven



Designed for use where steam is either unavailable or undesirable.

Can be furnished for either belt drive or gear drive, and can be driven by any motive power.

Like the steam driven Imperial Pumps, the Power Driven Imperial "Mud Hog" will work against 500 pounds pressure, and the Power Driven Imperial "Giant Mud Hog" against 1,000 pounds pressure.

For further information inquire at any of our 100 Branches.

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EQUIPMENT BRANCH STORES IN ALL OIL FIELDS

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United States Patent Office
Andrews, Streetman, Logue & Mobley
12th fl. Union N. Bk., Houston, Texas

"Safety Day" Will Be Big Event at Tulsa Exposition

(Continued from page 86.)

ers may enter later, as the closing time is not until September 1.

The concerns having teams entered are:

Phillips Petroleum Company from Burbank field;

Sinclair Oil and Gas Company from Shidler camp;

Carter Oil Company from Burbank camp;

Roxana Petroleum Corporation from Arkansas City refinery;

Marland Refining Company from Ponca City refinery;

Empire Refineries from Ponca City refinery;

Comar Oil Company from Tonkawa natural gasoline plant;

Tidal Refining Company from Drumright refinery;

Skelly Oil Company from Eldorado refinery;

Wolverine Oil Company from Osage camp;

Pierce Oil Corporation from Sand Springs refinery;

Mid-Continent Oil & Gas Company from West Tulsa refinery.

Marine Buys in San Miguel

Long Beach, Calif.—With the acquisition of 27 acres in Subdivision 5 of the Rancho San Miguel, two miles south of Ventura, the Marine Corporation holdings in that district cover 77 acres.

Adjoining or nearby land is held by the Standard, Petroleum Midway, Associated, Union, Oakridge and Shell Oil Companies, and it is reported the Standard Oil Company of California is contemplating drilling a test on its property within the next six months.

"GATX" Sales Changes

Chicago, Ill. — Announcement has been made by David Copland, first vice president of the General American Tank Car Corporation, Chicago, of several appointments made in the tank car sales department of this corporation. These appointments, which include some changes of location of the salesmen, were effective August 1.

Following is a list of the appointments with the headquarters of the salesmen in their respective territories: R. J. Sharpe is general Western sales manager, with offices at Tulsa; M. A. Sticelber, sales representative, will also be located in Tulsa; Bennet Epstein, general Eastern sales manager, will make New York City his headquarters; R. T. Musser, Pacific Coast sales manager, will be located in Los Angeles and San Francisco; and Z. R. Simon, Southern sales manager, will have his headquarter office at New Orleans.

OIL AND GAS LEASES
Marathon Fold—West Texas

12,000 acres University Permits, PECOS COUNTY, Dated Oct. 1, 1924, 5 years. The new law makes these permits most attractive. Can be subdivided into 40 acre tracts. Near Sun, Gulf, Dixie, California Company, Phillips, Arkansas Fuel, Humble holdings.

10,000 acres CROCKETT COUNTY. Large and small blocks; adjoining big companies; scattered wildcat. Also close-in adjoining World well block.

20,000 acres 10 year leases; low rentals; TERRELL COUNTY. Getting good play. Watch this county! Prices right.

5 000 acres Upton County. Scattered tracts, blocks for drilling.

60,000 acres one block—southeast PECOS COUNTY—on geological formation. Most attractive as to desirability, price and terms.

2,000 acres IRION COUNTY. 10 year lease; watch the new work here.

12,000 acres LOVING COUNTY. 10 year lease 10 cent rental. Right in line.

Write for prices and maps. Will allow time for geological inspection.

C. W. WEBSTER
W. T. Waggoner Bldg., Ft. Worth, Texas
Reference: Mercantile Agencies

USE
JONES
SUCKER
·RODS·
They Stand More Abuse!
The Largest Manufacturers of Sucker Rods in the World.
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TOLEDO, OHIO.

REGISTERED PATENT ATTORNEYS
United States and Canada
Send for blank form
EVIDENCE OF CONCEPTION
Bulletin "How to Establish Your Rights"
and complete information free
LANCASTER AND ALLWINE
440 Ouray Bldg. Washington, D. C.

SHAFFER GAUGE

Extra combination wheels (Made of Babbitt with fibre seat) **25c each** at any supply store.

YOU CAN'T GET BURNT WITH A SHAFFER

Either Your Arm Or Your Pocketbook

Buy a set from your supply store and you'll wonder how you ever got along without them.

Made in two sizes ½ or ¾ inch

Price $2.25

ALL PARTS ARE INTERCHANGEABLE

PARTS PRICE LIST

Handle	.90c
Brass stob (½ or ¾-inch)	.90c
Combination wheels	.25c
Stud bolt and Nut	.25c

J. E. SHAFFER COMPANY

316 Mid-Continent Bldg. **Tulsa, Oklahoma**

SMITH OIL AND GAS SEPARATOR

A PROFIT EVERY DAY

Increasing gravity in stock tank—saving gas for the gasoline plant or for fuel—saving fire losses—
All are profits from savings daily made by the Smith Separator; all represent money in your pocket.
That is the kind of equipment investment that is attractive. And the Smith Separator—hundreds of them— daily make their cash contribution to their owners in practically every field.

Type 10 — Capacity 25,000 bbls. oil, 100 million cu. ft. gas.
Type 1—Capacity 5,000 bbls. oil, 10 million cu. ft. gas.
Type 2—Capacity 2,000 bbls. oil, 5 million cu. ft. gas.
Type 3—Capacity 500 bbls. oil, 1 million cu. ft. gas.

It's equipment you should know more about. There's a special bulletin ready to go to you on request. A post card will do.

SMITH SEPARATOR COMPANY
TULSA, OKLA.

Chestnut & Smith Corp. Bldg., Telephone 6221

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London Office:
Perkins MacIntosh Petroleum Tool & Boring Co., Ltd., 25 Bishopgate.

Cable Address.
"Oleborers," London

SQUEAKS FROM THE BULL WHEEL

The "Big Indian" coming out of his field teepee with the appearance of leaving things behind him well done, is promient in the affairs of The Texas Company in Oklahoma. A gold-plated tubing stretcher will be given as a prize to the first reader who sends his name to the editor of "Squeaks."

Doodle Bugs in Kansas

"Oh! the doodle bug'll get you, if you don't watch out."

Perhaps that's a modern parody by which the mothers of Kay County, Oklahoma, are crooning their young to sleep these nights.

It might be stated in a question: "What's under the tents?"

For there is something new up in the Red Beds area, and a Kansas newspaper describes the situation like this:

"The Germans were working Saturday on the north half of the Fuller farm, northwest of Section 14-25-2w, and the Warren Herbig farm, northeast of Section 15-25-2w. They have set up five small canvas - covered structures 4x4 and 7 feet high. The walls are said to be eight inches thick and soundproof.

"An instrument, it is said, is in the interior of the structures (the tents), which records the movements of the earth's crust, recording vibrations with stronger force from the ground where there are structures than where none exists. It is believed that if this new and scientific plan proves a success, that core drilling will be eliminated. A survey was made by the German scientists of the Tonkawa field before they started work in the Alcorn pool."

ODE TO A DRILLER

Here's to the man who works under the beam
And has done so many a day.
He has done the best that he knows how
And his hair is turning gray.

He has been working now for many a year;
Not much longer will he last.
Some day he will hang them on the wrench
And over the river will pass.

St. Peter will meet him at the Pearly Gate,
As he is trying to get in,
And ask him for the log book
His life is written in.

The old Driller will sadly shake his head,
As he slowly turns away,
And the answer he will give him,
"I didn't strike the pay."

"I started my life like many a hole,
My rig was all brand new,
I spudded-in but struck some sin
And went crooked down below.

"I found my fault before I went too far
And, like all the drillers do,
I filled it up clear to the top
And started off anew.

"I kept them tight and never got loose
And drilled it over again
And make it straight to the Pearly Gate
For all of that streak of sin."

The Pearly Gates will open,
As St. Peter has his say,
It's "Welcome home, no more to roam,
At last you have struck your pay."

—By Salt Creek Driller in The Midwest Review.

Tillie: "What would you call a man who hid behind a woman's skirt?"

Willie: "A magician."—Doherty News.

It Cured Her

Not a hundred miles from Folkstone, a few months ago, a wife lay very ill. Having brought up a clever orphan girl, the sick woman called the young woman to her and said:

"I shall soon leave my little children motherless. They know you and love you, and after I am gone I want you and my husband to marry."

The young woman, bursting into tears, said:

"We were just talking about that."

The wife recovered.

Edinburgh Scotsman.

Some Difference

The teacher was trying to impress on the children's minds how necessary it is to always commence at the bottom and work up, explaining that that is the way men accomplish big things.

Little Rosie, six years old, spoke up, "My daddy don't."

"Why?" the teacher asked.

"'Cause he drills wells and commences at the top."—Bridgeport Driller.

Paul Peebles presents this picture to support his recent account of the fish hatchery at West Columbia. It shows "Shorty" Teague, custodian of the power plant on the Hyde Production Company's lease, posing in front of the fish pond that supplies his boiler water. Paul attempted a picture of the minnows in the pond but they wouldn't stay still and look at the bird like "Shorty" did.

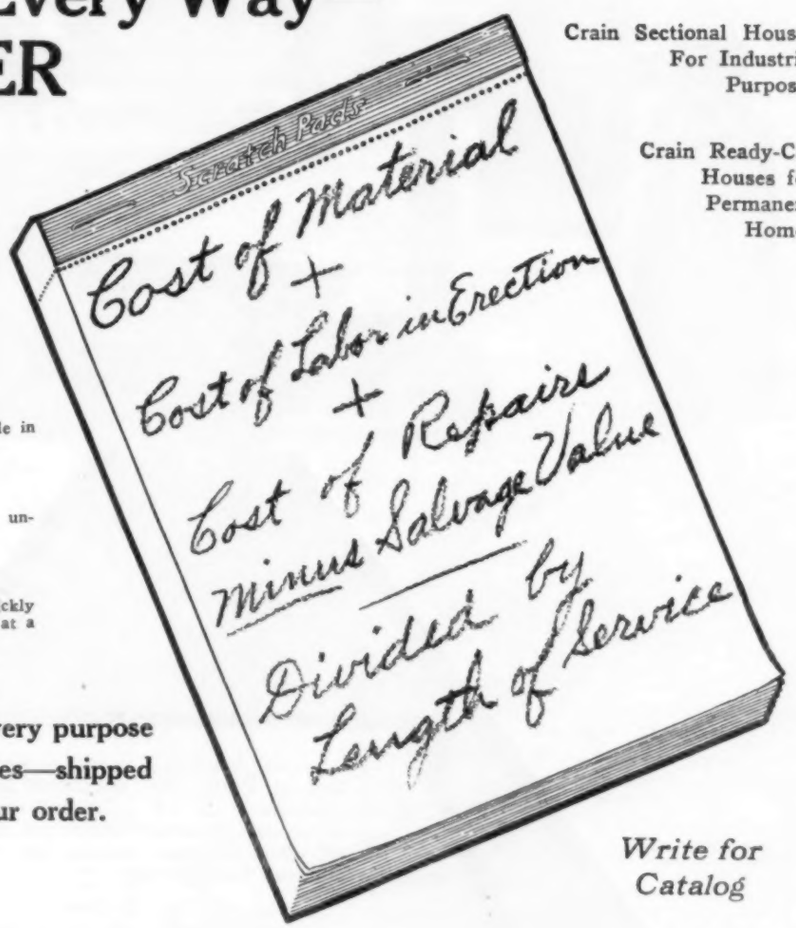
CRAIN
SECTIONAL BUILDINGS
(PORTABLE)

Better Looking—More Weatherproof More Durable—More Satisfactory Housing in Every Way—At a LOWER COST per DAY of SERVICE

LOW FIRST COST—
Because manufactured on a large scale in standardized, interchangeable units.

LOW ERECTION COST—
Easily and quickly assembled by unskilled workmen.

FULL SALVAGE—
Crain Sectional Houses can be quickly knocked-down, moved, and re-erected at a new location.



Crain Sectional Houses For Industrial Purposes

Crain Ready-Cut Houses for Permanent Homes

Crain Sectional Houses for every purpose are carried in stock at all times—shipped immediately on receipt of your order.

Write for Catalog

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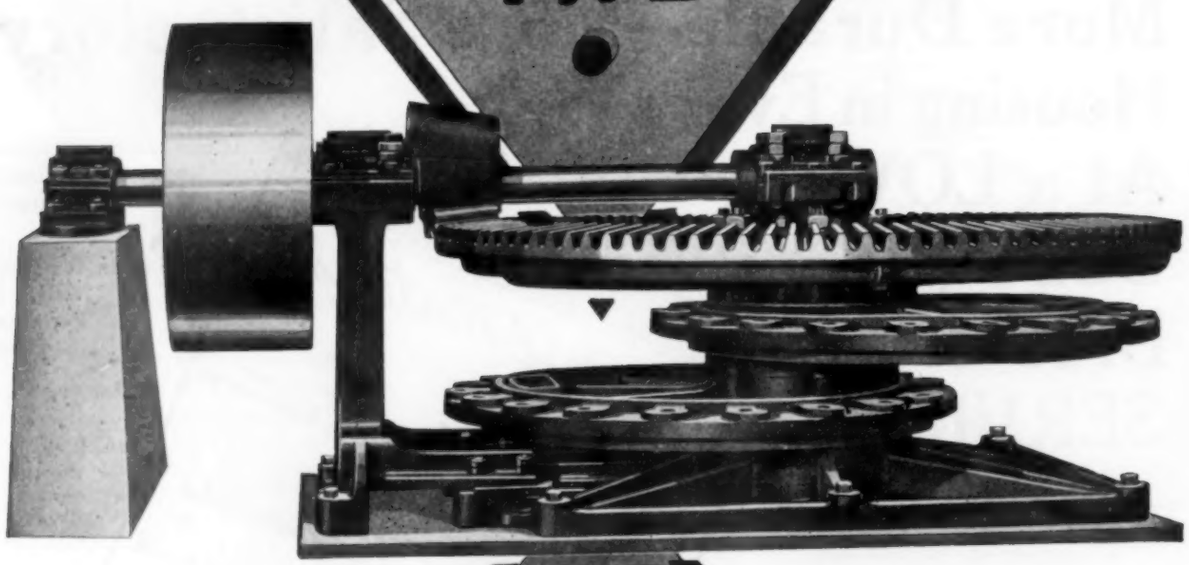
PATTIN

UNDER PULL POWER

HEAVY TYPE



The most improved—most powerfully geared Power yet developed for oil field service.

Just as strong—just as reliable as the usual band wheel powers—and far less expensive to install and operate.

Let us send you the facts

PATTIN BROTHERS CO.

Marietta, Ohio

"PATTIN" PRODUCTS PLEASE

GUIDE FOR PURCHASERS

A classified directory of all products used in the production of oil together with names of recognized supply dealers and manufacturers from whom they may be purchased. The concerns appearing in the Guide are regular advertisers in The OIL WEEKLY and further information including addresses can be secured by referring to their advertisements. Alphabetical Advertisers Index on page 22.

Air Compressors—
Continental Supply Co.
Gardner Governor Co.
Hope Engineering & Supply Co.
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Waukesha Motor Co.

Air Lift Pumping Equipment—
Gardner Governor Co.
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See Oil Field Supplies and Tanks

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Lufkin Foundry & Machine Co.

Drilling Cables—
American Cable Co.
Bridgeport Machine Co.
Continental Supply Co.
Frick-Reid Supply Co.
The National Supply Cos.
Peden Iron & Steel Co.
Regan Forge & Engineering Co.
Republic Supply Co.
Star Drilling Machine Co.
Wickwire Spencer Steel Corp.

Drill Pipe Slips—
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Continental Supply Co.

Drilling Machines—
Bridgeport Machine Co.
Continental Supply Co.
Parkersburg Rig & Reel Co.
Star Drilling Machine Co.

Drill Collars—
Baash-Ross Tool Co.
Continental Supply Co.

Drill Pipe Cutting—
Baash-Ross Tool Co.
Houston Engineers, Inc.

Drilling Tools—
Acme Fishing Tool Co.
Baash-Ross Tool Co.
Continental Supply Co.

Drilling, Diamonds for—
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Drill Pipe
Continental Supply Co.
Frick-Reid Supply Co.
Republic Supply Co.
Reading Iron Co.

Drilling Equipment—
Baash-Ross Tool Co.
Bridgeport Machine Co.
Continental Supply Co.
Republic Supply Co.
Star Drilling Machine Co.

Drive Pipe—
Continental Supply Co.
Republic Supply Co.
Reading Iron Co.
Superior Tube Company

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General Electric Co.
Westinghouse Elec. & Mfg. Co.

Elevators—
Bridgeport Machine Co.
Continental Supply Co.
The Cunningham Co.
Dunn Mfg. Co.
LeBus Rotary Tool Works
Wilson & Willard Mfg. Co.

Electric Equipment—
General Electric Co.

Engines, Diesel—
Western Machinery Co.

Engines, Gas—
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Climax Engineering Co.
Continental Supply Co.
Frick-Reid Supply Co.
Hope Engineering & Supply Co.
Spence Machine Co.
The Pattin Bros. Co.
Waukesha Motor Company
Western Machinery Co.

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Waukesha Motor Co.

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Frick-Reid Supply Co.
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Western Machinery Co.

Engines, Pumping—
Ajax Iron Works
Bessemer Gas Engine Co.
Bridgeport Machine Co.
Climax Engineering Co.
Continental Supply Co.
The Brownell Co.
De La Vergne Machine Co.
Franklin Valveless Engine Co.
Frick-Reid Supply Co.
Hope Engineering Co.
Lucey Mfg. Corp.
Lufkin Foundry & Machine Co.
The National Supply Cos.
National Transit Pump & Machine Co.
Oil Well Supply Co.
Peden Iron & Steel Co.
Republic Supply Co.
Rock Island Plow Co.
Spence Machine Co.
Southern Engine & Pump Co.
Titusville Iron Works
Waukesha Motor Company
Western Machinery Co.

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Foster & Reiter
Hope Engineering & Supply Co.
Lee C. Moore & Co.
Oil Conservation Engineering Co.
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Fire Protection—
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Oil Conservation Engineering Co.

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Lucey Mfg. Corp.
Pelican Well Tool & Supply Co.
Regan Forge & Engineering Co.

Floor Circle Brace—
Continental Supply Co.
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Sinclair Refining Co.

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Bessemer Gas Engine Co.
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The Lunkenheimer Company

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Continental Supply Co.
General Electric Co.
Westinghouse Elec. & Mfg. Co.

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Republic Supply Co.
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Robertson-McDonald Lumber Co.

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The Lunkenheimer Company

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Pelican Well Tool & Supply Co.
Republic Supply Co.
Southern Engine & Pump Co.
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Shaffer Specialty Co.

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International Supply Co.
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Texas Co.

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Fort Worth Laboratories

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Titusville Iron Works
United Iron Works, Inc.
Westcott and Greis
Wyatt Metal & Boiler Works

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Continental Supply Co.
International Supply Co.
Lee C. Moore & Co.
Oil Well Supply Co.
Parkersburg Rig & Reel Co.
Republic Supply Co.

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Republic Supply Co.

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Continental Supply Co.

Tanks—
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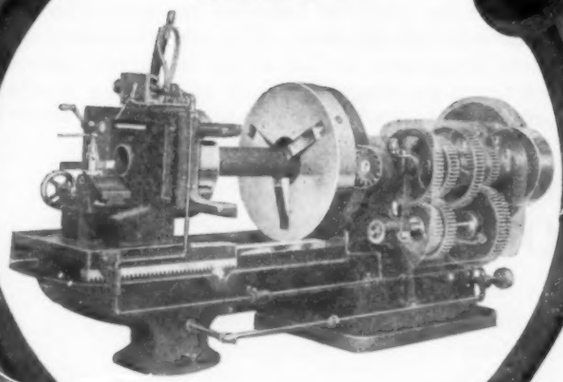

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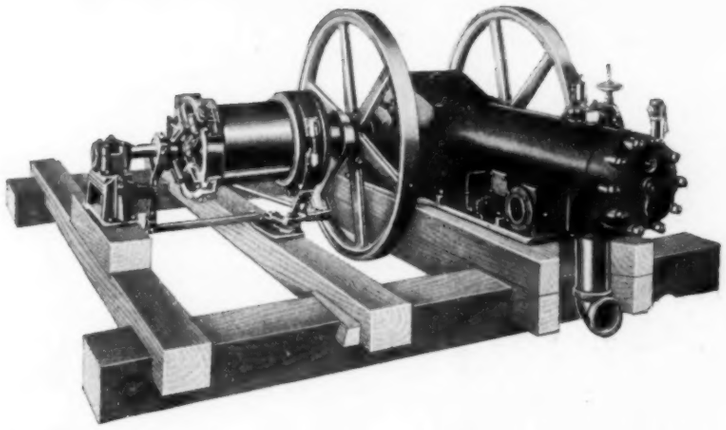

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